

XVI.—*On the Duns of the Outer Hebrides.*

(Plates XLVII.—LIII.)

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It is proposed in the following paper to describe such pre-historic fortifications in *Innise-fhada*,¹ i.e., the Outer Hebrides, as the writer has seen, or of which he has been informed by trustworthy correspondents, together with the mythological or legendary tales connected with these ancient defences ; to be followed by remarks on the examples herein described.

Dun Eistein, Ness, Lewis.

At the north end or Ness of Lewis, in the townland of Cnoc Aird, is the natural stronghold of Dun Eistein ; it is a flat, cliffy island, of a somewhat oval shape, about 75 yards long and 50 yards broad ; separated from the mainland by a narrow and perpendicular ravine, through which the sea flows at high water. The ravine is between 30 and 40 feet broad, and the same in height. The remains of a strong wall follow the edge of the cliff on the landward side of the island, through which it is said there had been squints or loopholes for observation and defence.

Towards the north-east corner are the ruins of a dun, sometimes called "Tigh nan Arm," or the House of Arms ; now but $4\frac{1}{2}$ feet high. The outside of the dun is an oblong square, 23×18 feet ; but the central area is of an oval shape, only $6\frac{1}{2} \times 4\frac{1}{4}$ feet, and there is no appearance of any doorway. The entrance was probably at the height of the first floor, similar to a dún in Taransay. The walls are of drystone masonry, but that is no proof of

¹ Innis-fhada, pronounced Innish-á-da, i.e., the Long Island. Giraldus Cambrensis states "In the Northern Ocean, between Ulster and Galway, there are various islands, for instance, the Orcades and Incades" (*Bohn*, p. 72). The Orcades are, of course, the Orkneys, and the latter I take to be Innis-fhada.

any great age in this part of the country. When exploring the ruins, the Rev. M. Macphail (who made the above measurements) found a very small piece of flint (probably a strike-light), some small bits of charcoal, and a strip of leather such as was used for making brogues.

There are the remains of houses on the island, said to have been built by the Morrisons. On the south side of the island is a flat ledge, called "Palla na Biorlinn," *i.e.*, the ledge of the Barge or Birlin, where the Morrisons used to haul up their boat.

Mr Macphail is of opinion that Dun Eistein gets its name from two rocks which lie at a short distance from its outer end, called Eistein Mor and Eistein Beg; otherwise I should have supposed it to be the Norse personal name, Eystein.

It is difficult to assign an age to Tigh nan Arm. The absence of mortar by no means proves a great antiquity. The "Tigh" or dun rather appears to have been an incipient peel, but I am unwilling to believe that it dates from the seventeenth century; it is more probable that it belongs to the age when Kolbein Ruga built his castle in Weir, Orkney, namely, the twelfth century.

This part of the country, Ness, was the location of the Clan, *i.e.*, Ghille Mhuire, that is, Servant of Mary, and Mac Ghille Mhuire (pronounced Vu-da) has been translated into Maryson, now Morrison. A writer of the seventeenth century, himself a Morrison, says, "The first and most ancient inhabitants of this countrie were three men of three several races, viz., Mores, the sone of Kennanus, whom the Irish historians call Makurich, whom they make to be a naturell son to one of the Kings of Noravay, some of whose posteritie remains in the land to this day. All the Morrisons in Scotland may challenge their descent from this man." But the writer forgets to mention the interesting fact, that the head of this clan was the Breitheamh (which formidable combination of letters is simply pronounced Bre-ave or Brieve) or Hereditary Judge of Lewis. "The Brieve is a kynd of judge amongst the ilanders, who hath ane absolute judicatorie, vnto whose authoritie and censure they willinglie submitt themselves, when he determineth any debateable question betuein partie and partie." As it is not likely that any one of the Brieves ever understood a word of English, and as the Scotch laws were never translated into Gaelic, it seems that the native or Brehon laws must have been administered in this part of Scotland as late as the seventeenth century. The Judge lived at Tigh Mor Thabost—in English, the Great House at Hall-stead.

About the middle of the sixteenth century, Macleod of Lewis (Old Rory) repudiated his second wife, Barbara Mackenzie, for adultery with the Brieve of Lewis (Hucheon Mac Ghille Mhuire or Morrison). Her son, Torquil Conanach, was never

acknowledged by Old Rory ; but a younger son, by a third wife, was named and acted as heir. To bring Torquil Dhu to his end, Kenneth Mackenzie (afterwards Lord Kintail), Torquil Conanach, the Brieve of Lewis, and Murdo Macleod, a natural brother of Torquil Conanach, held a secret meeting, when Lord Kintail stated it was necessary to make away with Torquil Dhu ; to which the rest agreed, but neither liked to put the proposition into force. At last, the Brieve was persuaded by the earnest entreaty of the other three, and the promise of a great reward, to undertake the matter. Afterwards, the Brieve with his clan (*Mhic Ghille Mhuire*, *i.e.*, Morrisons), went in his galley to Rona, and took on the way a Dutch ship, which was partly freighted with wine ; he took her into Stornoway, and invited Torquil Dhu to a banquet on board. "So being set down in the ship, expecting some wine, instead whereof they bring them cords ;" and Torquil was seized by the Morrisons and carried to the Mackenzie's country, where, by the instructions of Lord Kintail, Torquil Dhu and his company were beheaded, in the month of July 1597. At the instant of the execution there was an earthquake, which greatly astonished the malefactors, though naturally hardened in cruelty and crime. This act of the Brieve is readily understood if it benefited his own son, while it explains the dislike of the Mackenzies to the Morrisons, in spite of their felonious co-operation. After the death of Torquil Dhu the Morrisons fortified themselves at Ness—without doubt, at Dun Eistein—but Neil Macleod, another "sone naturell" of Old Rory, attacked them, killed some, and made the rest leave the fort at Ness.

About 1599, Neil Macleod fell out with Murdo (another "sone naturell" of Old Rory) for allying himself with the Morrisons, when Neil seized and killed some of the Morrisons, and delivered Murdo to be hanged.

It seems John Morrison, the Brieve, must have escaped at this time ; but that afterwards being in Assynt, with six of his kindred, it happened that John MacDonald MacHucheon (an Assynt Macleod), with four others, came by accident to the same house in which the Morrisons were. At this unexpected rencontre, each waited for the onslaught, till John MacDonald attacked and killed the Brieve and five of his men without losing any of his own party.

Malcolm Mor, who became chief of the Morrisons by the death of his father, sought to revenge himself on John MacDonald, but John, by chance, met this Malcolm in the Cogach, fought with him there, killed most of his men, made Malcolm prisoner, and carried him to Lewis, where Tormod Macleod beheaded him. This John MacDonald died in Strathnavir in 1620.

Such is the narrative taken from Sir Robert Gordon, who had one of the sons of Neil Macleod living in his house, and it is no doubt substantially correct. The *seanachaidh* of the Mackenzies tells a widely different story, which need not be noticed here.

In Lewis the traditions of those times have taken a romantic form ; and Allan, not Malcolm, is said to be the son of John, the contemporary of Old Rory. Many a wild and impossible story has been invented from the shadowy remembrance of the tragedies of the seventeenth century, but the only one relating to Dun Eistein is the following, which has a narrow foundation in fact :—

Neil Macleod, called in this legend Odhar (pronounced O-ar) or Dun, attacked the Morrisons on the Habost moor, but was defeated. Neil sent to Harris for assistance, and again came to Habost; but the Morrisons had taken shelter in Dun Eistein. The Macleods arrived at night, and marched to Dun Eistein, when one of the Morrisons, unaware of the presence of an enemy, came out of the hut, and was struck by an Uig man with an arrow—Baobh an Dòrlaich (literally, the Fury of the Quiver)—the last arrow of the eighteen that should be used, and it passed right through his belly. The wounded Morrison cried for help, when the rest came out, and Allan, the eldest, and by far the bravest of them, sprang across the ravine, and loudly demanded that the assassin should be given up to him. The Macleods denied all knowledge of the deed, but Allan reproached them with cowardice, saying, “If you have come to fight, you ought, according to the laws of war from the creation of the world, to have waited till there was light enough to see each other.” He then asked Neil to send his Leigh, *i.e.*, doctor, to the wounded man. Neil, after some hesitation, consented; when Allan took the Leigh under his oxter, and leaped across the ravine with him back into the dun. The man died, however, and the Morrisons fled to the mainland; thither Neil pursued, but the Morrisons had seen Neil crossing the Minsh, and, slipping out from among the islands, tried to get back to Lewis. The Macleods ascended a hill, espied the Brieve’s birlin, and gave chase. There were only Allan Morrison and his two brothers in the boat, so Allan Morrison, who was very strong, set the brothers to row against himself, and composed and sung this “iorram” or boat-song, with which the Ness fishermen still lighten their weary toil:—

The chorus—“Nàilibh i, ’s na-ho-ro” is repeated after every line.

“Iomair a Choinnaich fhir mo chridhe;
Iomair i gu làidair righinn;—
Gaul nam ban òg ’s gràdh na nighean.

“Dh’ iomrain féin fear mu dhithis,
’S nam éiginn e fear mu thri.
Tha eagal mòr air mo chridhe
Gur i biorlinn Neil tha tighinn,
No eathair Mhic Thormaid Idhir.

“’S truagh nach robh mi féin ’s Nial Odhar
An’ lagan beag os ceann Dhun Othail;
Biodag nam laimh, is e bhi fodham,—
Dhearbhinne féin gun teidheadh i domhain.
’S gun biodh fuil a chlàibh ’na ghabhail.”

Translation—

Chorus—"Na liv ee 's na-hò-rò," words having no meaning.

"Row, Kenneth, man of my heart;
Row with vehement might;
The darling of damsels, and the beloved of girls.

"I myself could row against two;
And may be against three.
There is great fear on my heart
That it is Neil's barge that is coming,
Or the boat of the son of dun Norman.

"It is a pity that I and dun Neil were not
In a small hollow above Dun O-ail:
A dirk in my hand, and he beneath.
I would be sure that it should go deep,
And that the blood of his breast should flow down his reins."

Neil overtook the Morrisons a short time after they passed Dun Othail (O-ail), where they fought desperately. Neil attacked them on one side, and the Harris men in a second boat on the other. Allan engaged Neil's party, and killed nearly all his men, when Neil exclaimed—"My men, something must be done, or the monster (*biast*) will not leave a head on a neck among us." They fastened a sword to the end of an oar, therewith to stab Allan; who, when he saw it coming, made such a desperate blow as to cut the oar in two, but, striking into the gunwale of the boat, his sword stuck fast, and before he could withdraw it both himself and his two brothers were killed.

Such is a Lewis romance of history.

Dun Eòrradail (in English, *Eordale*; for *Eyrardalr*, Norse = *Beach-dale*), *Ness, Lewis*.

Dun Eòrradail is situated on the coast, about a mile to the southward of Dun Eistein. It is a small tidal island, joined at low water to the main by an Eyrr or Ore, *i.e.*, beach, and which has apparently been fortified by a wall.

Martin describes it as a natural fort, Dun-coradil, evidently a typographical error for Dun-eoradil.

Dun Bhilascleittir (in English, *Villisklet*, for *Villis-klettr*, Norse = *Wills-precipice*), *Ness, Lewis.*

Dun Bhilascleittir is on the coast, three miles to the southward and halfway between Dun Eòrradail and Dun Othail. It is a promontory, enclosed by a wall 10 feet thick and 72 feet long. The cliffs at both ends of the wall are very high, near 200 feet. The site of the dun commands a good view of the surrounding district, and of the sea as far as the eye can reach. Where the promontory is enclosed, the promontory is as high as the country around and maintains its level for nearly half its length. It then suddenly slopes into the sea. There is, I think, about four acres in the enclosed space.

Dun Othail, North Tolsta, Stornoway, Lewis.

By the kindness of Sir James Matheson I was driven out to Tolsta on my way to Dun Othail (pro. O-ail). It was a cold snowy day, and under guidance of the shepherd, by wading through overflowing brooks and wet heather, I reached my destination, a scene at once desolate and grand.

Dun Othail is a natural fortress, being an irregular peaked rock upon the sea coast, nearly 200 feet high, and disjoined from the main by a perpendicular ravine, which, however, does not reach to the water. The ravine appears to have been the walls of a trap dike, which has been eroded. The dun is only accessible from the land on the south-east side, and there it is defended by a wall. I was unable to proceed beyond this, but Mr Macphail informs me that, although there is no defensive masonry upon the rock, it is so difficult of access that the path which leads upwards could be defended by a single individual.

An oblong ruin upon its extreme point is supposed to have been a chapel.

Dun Othail is famous in Lewis legends. The ubiquitous Coinneach Odhair (dun Kenneth) has prophesied that there will be great destruction of the Lewis people by the sword; but

“ Amhainn Lacsdaile fo thuath
 Aig an Cruinnich am mòr shluagh;
 * * * * *
 Ach thig a mach a Dun Othail
 Na bheir cobhair dhoibh 's fuasgladh.”

that is,

“ At the north Laxdale river
Where the great multitude of the people will gather ;
* * * * *
But there shall come out of Dun O-aile
That shall render them help and relief.”

The ravine separating Dun Othail from the main is called Leum Mhac Nicol, *i.e.*, Nicolson's Leap; and it is made the scene of a legend, of which I have several and various editions. One of them may be briefly told as follows:—Mac Nicol, for some misconduct, was sentenced by the chief of the Lewis to be mutilated. In revenge he ran away with the only child of the chief, and being closely pursued, Mac Nicol leaped across the chasm with the child. Persuasion was used to induce him to surrender the child; but he refused unless the chief were reduced to the same condition as himself. Several subterfuges, which are too technical to be reproduced here, were tried to deceive Mac Nicol, but in vain, and to save the child the chief consented. When Mac Nicol was sure that he had gained his purpose, he sprang with the child over the cliff into the sea, saying (in Gaelic, of course), “I shall have no heir, and he shall have no heir.”

Now this tale is a good instance that where the accidents of a place are fit, a legend is either originated there or is transferred to it. The real scene of this tragedy is claimed by the South Uist people for Huishness, South Uist, and “Nicolson's Leap” is marked there upon Johnston's map. Nearly the same tale is told of a place in Mull, and probably elsewhere. But some time ago I came upon the original story in Giraldus Cambrensis, where it is told in words of the same meaning as those used by the shenachies of Lewis at the present day. Giraldus says the tragedy occurred at Chateau Roux, at present the chief town of the department of the Indre in France:—

“The lord of that place maintained in his castle a man whose eyes he had formerly put out, but who, by long habit, recollected the ways of the castle and the steps leading to the towers. Seizing an opportunity of revenge, and meditating the destruction of the youth, he fastened the inward doors of the castle, and took the only son and heir of the governor of the castle to a high tower, from whence he was seen with the utmost concern by the people beneath. The father of the boy hastened thither, and, struck with terror, endeavoured by every possible means to procure the ransom of his son, but received for answer that this could not be effected but by the same mutilation of those lower parts, which he had likewise inflicted on him. The father, having in vain entreated mercy, at length assented, and caused a violent blow to be struck on his body, and the people around him cried out lamentably as if he had suffered mutilation. The blind man asked him where he felt the greatest pain, when

he replied in his reins; he declared it was false and prepared to precipitate the boy. A second blow was given, and the lord of the castle, attesting that the greatest pains were at his heart, the blind man, expressing his disbelief, again carried the boy to the summit of the tower. The third time, however, the father, to save his son, really mutilated himself; and when he exclaimed that the greatest pain was in his teeth, 'It is true,' said he, 'as a man who has had experience should be believed, and thou hast in part revenged my injuries. I shall meet death with more satisfaction, and thou shalt neither beget any other son nor receive comfort from this.' Then precipitating himself and the boy from the summit of the tower, their limbs were broken, and both instantly expired. The knight ordered a monastery to be built on the spot for the soul of the boy, which is still extant, and called *De Doloribus*."

It is most singular that an event happening so far away, and probably more than seven centuries ago, should, though falsely located, be told by the bards of Lewis with such distinctness at the present time. Whether it has been continually passed on from mouth to mouth, or whether, which is more probable, it has been read from Giraldus by the Catholic priests, it is nearly certain that it must have been kept alive by repetition for at least three or four hundred years.

Dun Smirvig, Lionol, Barvas, Lewis.

Dun Smirvig stood near the schoolhouse at Lionol, and is believed to have been a circular tower. The site is not marked on the Ordnance Map. The lake in which the dun stood is now almost the boundary of the minister's glebe. The site of the dun is indicated by a green knoll.

Dun Sleibhe, Cross, Barvas, Lewis.

A circular tower in a bog; now entirely removed.

Dun Mara, Cross, Barvas, Lewis.

Dun Mara stood on the sea coast. It is now removed. One of the old people reported that this and Dun Sleibhe were as round as a bottle, and that eighty years ago they were quite entire, in which he was certainly mistaken; but there may have been considerable remains of each before there was a general rebuilding of all the cottages in Lewis. The old gentleman was also of opinion that these two duns were the first that were

made in Lewis, and that they were built under the auspices of King Donmark of Norway.

Dun Airnistenn, Dail o Thuath (in English, *Dun Arns-ton, North Dale*),
Barvas, Lewis.

Said to have been a circular tower.

Dun Cleamon, Dail o Thuath (in English, *Dun Clement, South Dale*),
Barvas, Lewis.

Nothing remains of Dun Cleamon. Its site, which is now ploughed over, is not marked on Ordnance Map. A polished stone hammer was found near this dun.

Dun, Loch Bharabhat (= *Borgar-vatn*), *Gabhunn* (in English, *Galson*),
Barvas, Lewis.

This dun is on an island in a lake. It is a "Pictish tower" (a Broch), and there is still 6 or 8 feet of it remaining. The lake is being drained, and the stepping-stones on the north-west side are now dry.

Dun Sabhuill (i.e., *Savil*), *Galson, Barvas, Lewis.*

By the shore ; apparently circular.

Dun Bhuirgh, Borgh, Barvas, Lewis.

Dun Bhuirgh (pronounced Vurrie) is situated in the townland of Borgh, or Borve, to which it has given its name. It stands about half a mile from the coast, upon one of the flattest parts of Lewis, at a little more than 100 feet above the sea, upon a former islet in a lake now drained.

In 1781 it was a heap of ruins ; but Mr Macphail has lately been able to make out that the dun is circular in plan, of undressed stones, and without mortar. The internal diameter is 30 feet, and the walls are 11 feet thick ; the external diameter is therefore 52 feet. There appear to have been seven beehive cells in the thickness of the wall, some of which were 10 feet long and 5 feet broad. At about one-third of a circle from the main doorway there is a doorway, from the area, entering to a large

cell, which is 16 feet long, $4\frac{1}{4}$ feet broad at one end, 3 feet at the middle, and 2 feet at the other end.

Though neither history nor tradition are associated with Dun Bhuirgh, the fairies have long made it their residence. They used to be seen with their big black dogs, with large iron chains round their necks, going about like ordinary men in their Bruithean. They were of great assistance to the Borvians, often helping them out of their difficulties, and even performing apparent impossibilities.

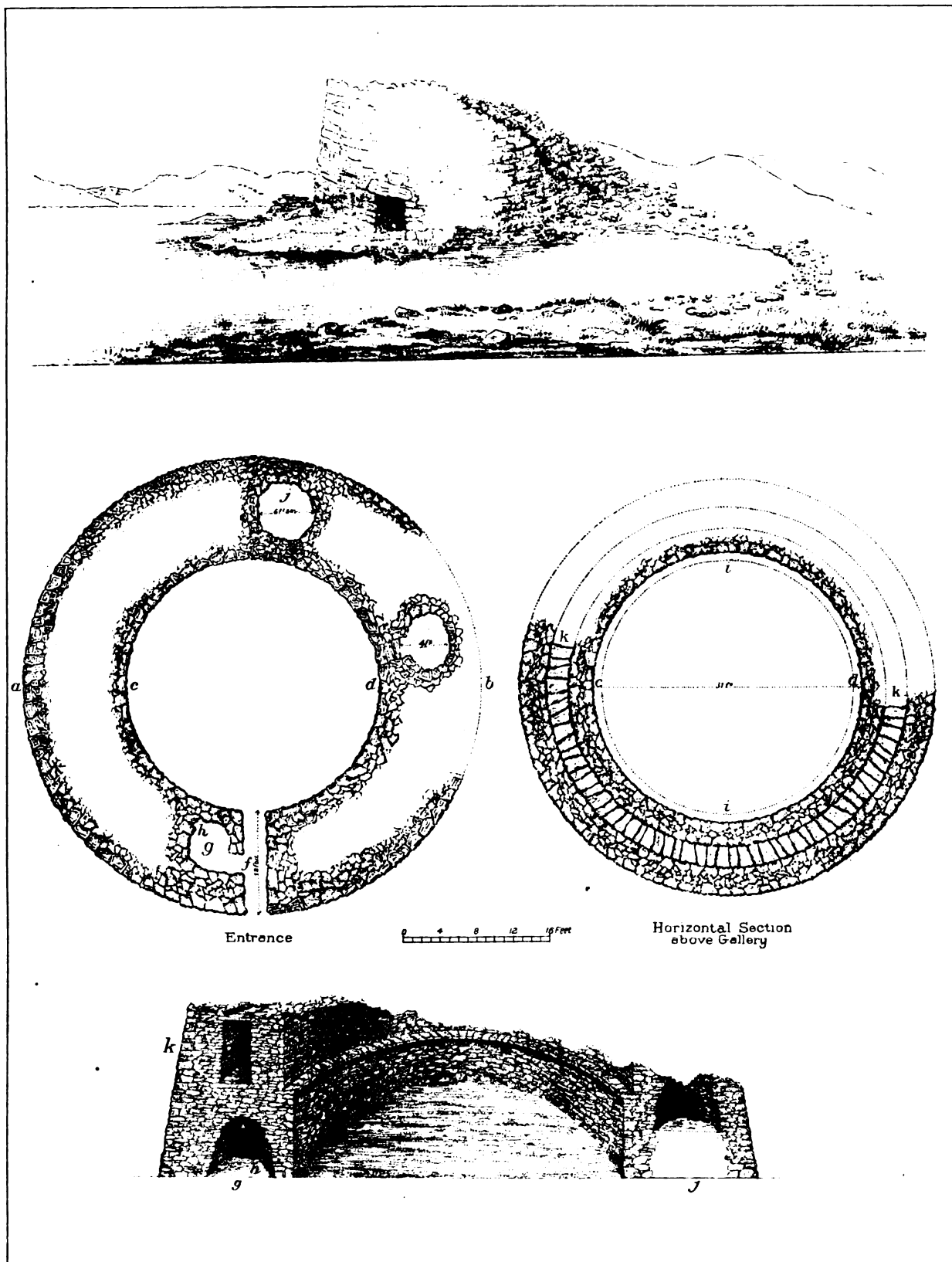
Ever since the burning of the Lewis forests there is often a scarcity of timber. A Borge boatman, who lived when the fairies inhabited the dun, experienced this difficulty, but got over it in a wonderful manner. It seems he had no mast for his boat, and knew not where to get one. He was not altogether destitute of wood, for he had a small "simid," or hand-mallet. He took this to the dun, and throwing it on the ground outside the wall, he loudly expressed his hope and wish that the fairies would before morning convert his "simid" into a mast for his boat. Being curious to know how the fairies would get on with his mast, he hid himself in some nook about the dun. He had not waited long when he heard them speaking of himself and his "simid." "Nach cruaidh a cheist a chuir am fear a thainig a tir nam fear beo oirinn!" i.e., "What a hard task the man who came from the land of the living men has given us!" The first who attempted it could do nothing at it, and killed himself in the attempt. The brother of the deceased fairy, in a great rage, tried next, and was rather liberal in his imprecations on the man who came from the "land of the living men," saying, "Mo bhuilg, m'uird, us m'ionnan; m'ainnis, m'eiginn, us m'aimbeart, crann-bata dheanamh de shimid. Gu ro trom eiginn is cruaidh mhilleadh air an laimh a chuir a steadh an simid, or chuir mo bhrathair a mach ris fuil a chridhe;—ach ni mis e";—i.e., "My bellows, my hammers, and my anvil; my poverty, my distress, and my foolishness: to make a mast of a hand-mallet. My weightiest violence and my destruction be on the hand that sent in the mallet, for it cost my brother his heart's blood;—but I will do it." And the man found in the morning his mallet transformed into a mast.

*Dun, Loch an Duin, Siadeir (pronounced Shadder for Setr, Norse),
Barvas, Lewis.*

There are modern buildings in the dun, and a stone basin is lying near it, among the stepping stones.

Dun Bhragair, Loch an Duna, Bragair, Barvas, Lewis.

This dun (Plate XLVII.) is situated near the road, on a small point projecting into the lake, about one mile from the bay, which has given the



DUN BHRAGAIR BARVAS, LEWIS.

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township its name. It was a cylindrical tower, of undressed stones, and without mortar. We examined and surveyed it with as much care as the encumbered area and the ruined state of the walls would permit. The external diameter (*ab*) of the dun is 55 feet, and the walls are 12 feet thick. The present height of the dun on the south side is 14 feet, and the batter at that height is $2\frac{1}{4}$ feet; the internal area (*cd*) is 31 feet broad. The main doorway (*e*) is $2\frac{3}{4}$ feet wide and $3\frac{1}{2}$ feet high, and is of course 12 feet long. It is to be remarked that it faces the water, which shows some strategetical forethought. When on an island the door usually faces the stepping stones.

On the left-hand side of the passage is an entrance (*f*), $2\frac{1}{4}$ feet wide, to a subcircular beehive guard-cell (*g*), about $5\frac{1}{2}$ feet in diameter and $5\frac{3}{4}$ feet high; at the inner side is a small cuil or recess (*h*). Around the area, at the height of $7\frac{3}{4}$ feet from the ground, is a cornice or ledge (*i*), formed by projecting, flat, undressed stones, of from $\frac{3}{4}$ to 1 foot broad. The area is filled up to the cornice with stones, which formed the wall of the tower; and I had neither time nor force enough to excavate sufficiently in search of the inner door. All we could be certain of was that there was a gallery (*k*) through the wall for about one-half of its circumference; and there appeared to be remains of beehive chambers in the walls, with their floors at different heights.

If the New Statistical Account is correct, this dun must have been in good preservation up to 1837; for it is described as "well adapted for defence, built solely of large stones, three storeys high, tapering towards the summit, with a double wall, bound with large flags, which, at the same time, form a winding staircase in the thickness of the wall, by which one may go round the building."

The further destruction of this dun has been stopped by Sir James Matheson.

The bards of Lewis tell of a strange tragedy that was enacted at Dun Bhragair, of which the victim, according to one authority, was John Mackay; but John Morrison, the industrious collector of the traditions of Lewis, writes that it was a Macphail. The whole story, as told by the latter, is not fitted for "ears polite"; but in an abridged form, and from both sources, it is as follows:—

The brieve at Ness had treacherously seized Neill, "sone naturell" of Old Rory, chief of the Lewis, and Donald Cam Macaulay. In this he was aided by John Roy

Macphail, a man of gigantic strength. They were carried to Ullapool, but both escaped, and came back to Lewis. When the Morrison party were aware of this they prepared against attack, and Macphail secured himself, along with his wife, in Dun Bhragair. Now, to understand the sequel, it must be told his wife was a Macaulay, a niece of Donald Cam's. Donald Cam musters his clan, and picked out twelve of the best swordsmen to go and take John Roy Macphail, dead or alive. They arrived in the night and found Macphail in bed; they closed with him, but the whole party were unable to overpower him, when his wife exclaimed,—Did they not know how to hold a boar? By unfair means they were able to make him a prisoner. Next morning they started for Uig, with their prisoner secured to a rope, six on each side. But so great was Macphail's strength, that, when crossing the Grimasta river, near Linshader, Macphail struggled and threw down the whole twelve in the water. They carried him to Kirkabost, Berneray, and the next day Donald Cam came from Uig. Macphail employed a man to watch for Donald Cam's coming, and to tell him whether he was looking up or looking down. The messenger informed the prisoner that Donald Cam was looking so intently on the ground as if he were seeking for the smallest pin. Macphail then expected no mercy, and he was hacked to pieces by the swords of the Macaulays. If the event above related really occurred, it must have been at the beginning of the seventeenth century. It is strongly believed in Lewis.

Dunan Chroir, Croir, Barvas, Lewis.

On the shore at Croir.

These are all the forts or duns in the parish of Barvas, Lewis. The parish is a large rough moor, surrounded on the west, north, and east sides by the sea; but there is no harbour for a ship in it, and but indifferent landing for boats. The east side is nearly uncultivated, but on the west, for about an average mile from the shore, there is a strip of good land, and a numerous population. It is here that the circular towers were built; they have served as quarries for stones, so that, were it not for the Ordnance Map, the names and sites of them would, in a few years, be quite forgotten. I have noted two—Dun Cleamon and Dunan Chroir—which are not on the map. There are only natural strongholds on the north and east coasts, and there never have been permanent habitations, either fortified or domestic, in the interior.

Caisteal a Mhorfhear, North Tolsta, Stornoway, Lewis.

Caisteal a Mhorfhear, *i.e.*, the Castle of the Nobleman, is a stack or pillar rock, with almost perpendicular sides, and perhaps 50 feet high; standing near the cliff in a sandy bay, one mile north of North Tolsta. The top is flat, and I did not see any remains of masonry there. There certainly would be some difficulty in getting to the top of it, and as it appeared to be within a stone's throw of, and commanded by, the adjacent cliff, I could see no advantage from being upon it; it is not noted on the Ordnance Map.

There is a rocking-stone at North Tolsta.

Dun Beinn Earba.

Probably near Earabbic (Eyrar-vig). Earabbic is marked on the Ordnance Map, but no dun.

Dun Beinn Ivor.

There is a Loch Beinn Iobhair (Ivor), on the west side of the road, about one mile north of Gress, and the dun is there.

To the westward of Loch Beinn Iobhair, and one and a quarter miles distant, is a very large cairn,—the only remarkable one, to my knowledge, on this side of the island. It is marked Carn a Mhare on the Ordnance Map, but it should be Carn a Bhairce (pro. "Vark-e"). Martin calls it Carn-warp, meaning Carn-varp; varp (Bhairp) being the genitive of Barp. But the name is a pleonasm; for Barp (= barrow) is a large cairn. So completely is the meaning of this word forgotten in Lewis (although in common use in Uist) that Barp or Barc has been transformed into a son of the King of Lochlinn, who was killed on that spot while on a hunting expedition, and was buried there, hence called Carn Bharce Mhic Rìgh Lochlinn.

Dun Ghrais.

At Gress.

The three last duns are noted on the authority of Mr M. Macphail.

Dun Mor, Garrabost, Stornoway, Lewis.

On the coast at Garrabost.

Dun, Loch an Duin, Paibail, Stornoway, Lewis.

At Paible.

Dun, Loch an Duin, Aird, Stornoway, Lewis.

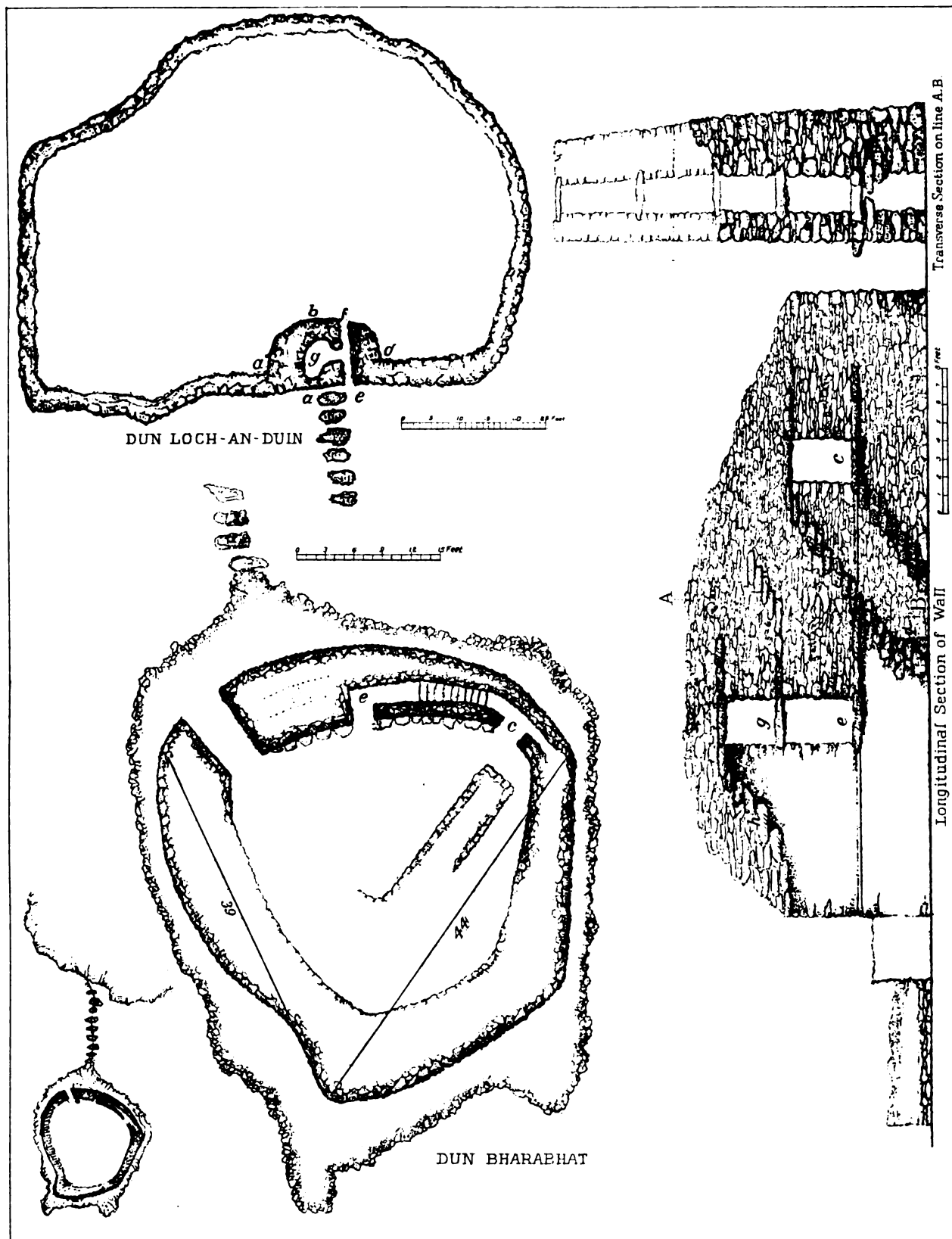
Near the northern extremity of the Aird, in a small lake nearly a quarter of a mile in diameter, is a little flat, low, grassy, fortified island, a very little above the level of the water. The island is about 90 feet long and 50 broad, and is surrounded at the water's edge by a wall of dry stones, which has been 5 feet thick, and probably 6 feet high, but is now much broken down. The island is but a stone's cast from the south shore of the lake, and is approached by stepping-stones, which are apparently laid upon a causeway, for there is deep water all round the island.

The interest of this dun (Plate XLVIII.) lies in its port or doorway, but it is in so ruinous a condition that it took me some time to make out the details. Right opposite to the stepping-stones the wall is thickened (as at *a b*) to 13 feet, and was probably raised as much in height, as it is still 9 feet high; through which is a narrow passage (*ef*), $2\frac{1}{2}$ feet wide and 13 feet long, and which, when perfect, was no doubt roofed over at the height of 5 feet.

The east side of the passage is a solid block of rubble masonry, about 5 feet thick; but on the west side, at the middle of the passage, is an entrance to a guard-cell (*g*), which would hold three or four men, and from which they could defend the passage with great security; it differs in no way from those almost always present in the circular towers. This cell is now unroofed, but its outline can be distinctly traced; it is of an irregular oval figure, and may be roughly stated as 6 feet long and 4 feet broad.

This feature is very interesting, for it connects this fortification in time and style with the much more elaborate Pict's castle, as also with the duns described by Mr Du Noyer as existing in the southwest of Ireland; and with a fortification in Shetland to be noted further on.

The side of the island, and consequently the enclosing wall facing the causeway, is not quite straight, but is slightly concave. I supposed this to be merely an accident, but Mr Macphail is of opinion that it is intentional and to flank the entrance.



GROUND PLANS OF DUN LOCH-AN-DUIN IN THE AIRD AND DUN BHARAVAT.
BERNERAY, LEWIS. AND SECTIONAL ELEVATIONS OF WALL OF DUN BHARABHAT.

12/20/20

Besides the above defences, there is Caisteal Mac Neacail (Nicol) Stornoway Castle (both were mediæval towers), and entrenchments at Holm, said to have been thrown up by the "Fife Adventurers"; but these do not come within the scope of the present inquiry.

Stornoway parish, although the smallest of the four into which Lewis is divided, is by far the most important, from containing the flourishing town of Stornoway. And its fine harbour, upon the whole the best on the east side of Lewis, must from the earliest times have been frequented by decked ships, when the crews were strong enough to defend themselves from the then piratical inhabitants. This is no place to enter upon its history, but it may be remarked in relation to the present subject that the site of no ancient dun is known near the town, the inference being that the loose stones of which it was built have been quarried away for domestic purposes.

Dun, Loch an Duin, Lochs, Lewis.

In a lake, one mile north of the Free Church, at Luirbost.

Dunan, Crosbost, Lochs, Lewis.

On the north side of the entrance to Loch Luirbost a small low point has been fortified by a wall, which separates it from the main. The enclosed area, surrounded by the sea on three sides, is a stony heap, 30 feet in height.

In the list of duns supplied to me by Mr Macphail, there is one in Lochs, called "Dun Feiltinish," which I suppose is the Dunan described above.

Dun Bharclin (pronounced Varcin), Loch Luirbost, Lochs, Lewis.

Loch Luirbost, or, written in English, Loch Lerbost, is a sheltered and picturesque arm of the sea; and is further remarkable from having at its south side, at Swordal, several acres of natural wood. There are a few willows, but most of the trees are birches. None of the standing wood was more than thirty years old, but the stools from which the birches sprung were some of them 3 feet across.

At the entrance to the loch is a fortified island, which I did not measure; but it may be 150 yards long and 30 yards broad. I noticed it accidentally

when pulling past, and find it named Dun Bharcin (Castle Varcin) on the Ordnance Map. The island is only from 12 to 20 feet above high-water level, and is uneven and rough, with transported stones. A ruined wall is built along the coast-line upon the east side and round the north end, as also about 20 paces on the west side, where it is easy to climb up. The remainder of the coast is perpendicular or overhanging, but is generally only 10 feet above high water.

The foundation stones of the outer face of the wall can be seen in many parts, and in one place the face of the inner wall can be traced. The wall is there 10 feet thick, and that was the average thickness. No mortar had been used; the stones were of all sizes, the largest containing 5 cubic feet, but the average about 2 feet.

On the east side is the foundation of a beehive cell, 5 feet in diameter, being no doubt the guard-room of the gate. There were no means of knowing the height of the rampart when perfect; but at one place, where it crosses a break in the bank (coast), it must have been raised 12 feet to bring it to the level of the adjacent parts.

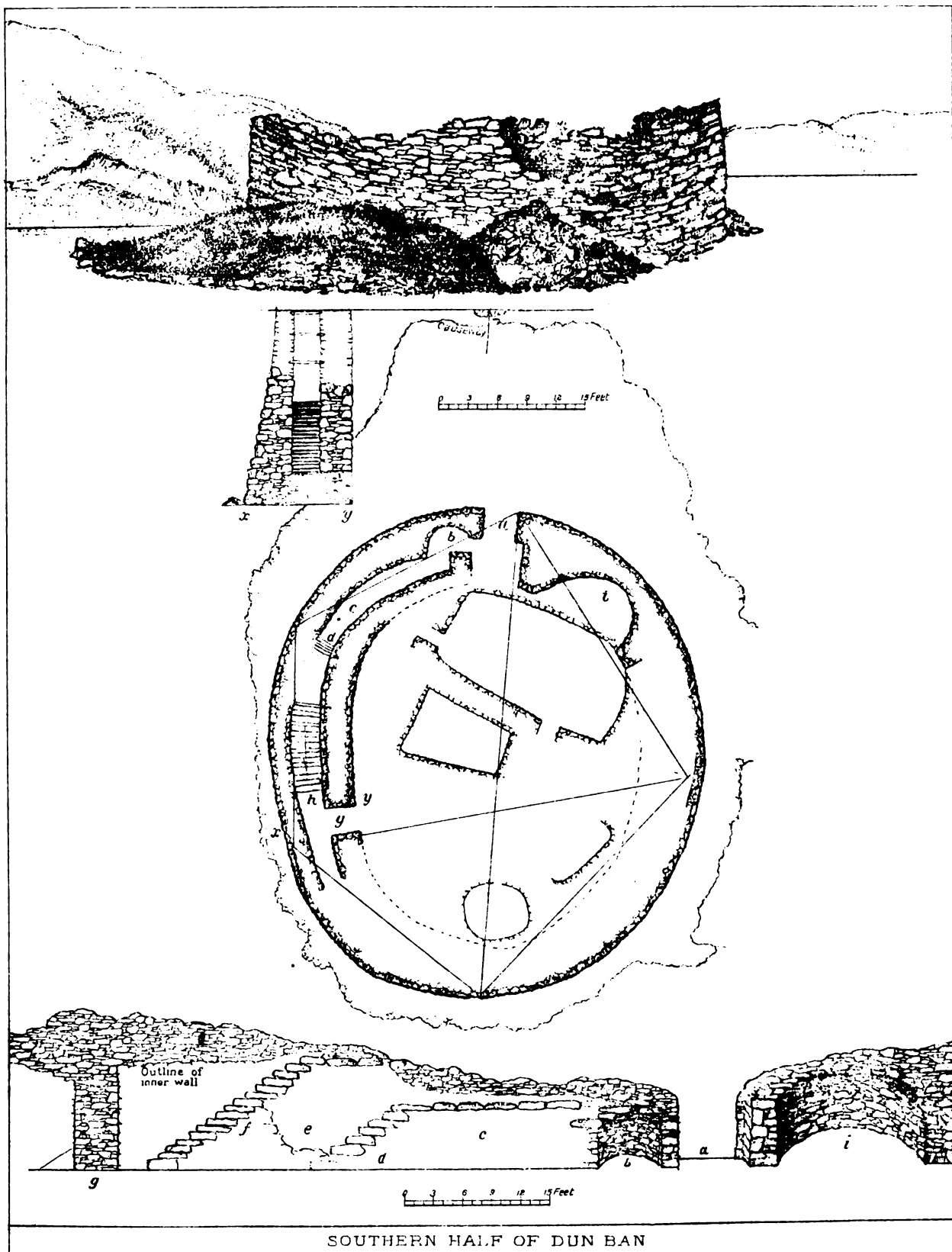
Of course there is a spring upon the island, but I did not find it. The traces of ancient huts were evident.

It is probable that those parts of the island which are not defended by a wall had a rampart of turf to shelter the defenders.

Dun Ban, Loch Cromor, Lochs, Lewis.

The parish of Lochs, anciently Loghur, has probably received its name from the long firths with which it is intersected. Loch Erisort is a fine sheet of water, penetrating for miles into the country, and has many small islands at its mouth. It must have been an important place formerly, for, besides the churches dedicated to SS. Columba and Farrer, there are three fortifications, all near the mouth of the loch. The townland of Cromor is on the south side of the entrance, and on a small islet, in a brackish lake, is Dun Ban.

This Dun was a very great puzzle, and I left it at the first time with quite a false impression, for it was believed to be an entirely new style of fortification; but subsequent exploration proved that the door of the dun had been built up, that one-half of the enceinte had been rebuilt, and



SOUTHERN HALF OF DUN BAN

DUN BAN. CROMORE, LEWIS
View, Plan and Sectional Elevation.

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that two or more characteristic Lewis cottages had been partly excavated, partly built, of the stones that filled the area.

The dun is on a rocky islet, which is joined to the shore by a sunk causeway, about 80 feet long, on which was a row of stepping-stones, in a curved line, some of which remain. The islet is 60 feet long and 40 feet broad, and is low and flat.

The dun (Plate XLIX.) is not truly circular, the longest diameter being 50 feet and the shortest 44 feet. The average thickness of the old wall is $7\frac{1}{2}$ feet, and of the secondary wall about the same; but as there is no proper inner facing to that part, its thickness could not be measured. The highest part now left of the wall is $11\frac{1}{2}$ feet, or 14 feet above the water.

On landing there is 31 feet of glais, or rather of rocks and brambles, to the door, which fronts the causeway. We found the doorway built up, but cleared it out entirely. The doorway is $3\frac{1}{2}$ feet wide at first, continues so for 3 feet, then widens to 5 feet.

On the south side of the doorway (*a*) is the door of the guard-cell (*b*), $1\frac{1}{2}$ feet wide, and the cell continues as a ground gallery (*c*) for 16 feet, when it is blocked (*d*). The roof of the ground gallery forms the floor of the second gallery, from which a flight of steps leads down to the ground into another cellar-like place (*e*), and this again is blocked by the stairs of the third gallery (*f*). This part of the construction is very singular. From the ground area of the dun a doorway (*g*), 3 feet wide and 7 feet high, is pierced through the inner wall, entering on a landing, from which a flight of seventeen steps (*h*) leads to a third gallery; and this is all that now remains. The place is very ruinous, and it was with difficulty that so much of the plan of construction could be made out.

On the north side of the door a half moon is hollowed out of the thickness of the wall, but I could not understand its purpose. Here the original masonry ends, and a thick, rude, solid wall, built no doubt on the original foundations, completes the enceinte as far as the "grand" staircase.

The area of the dun is partly occupied by two oblong cottages, of which the walls are embedded in loose stones; and for greater security the whole original doorway was built up, so that the only way to get to the house was by climbing up the castle wall. In the area of the cottage was some slag, as if a forge had been used there. There were other indistinct walls of houses within the area, perhaps the refuge in mediæval times of "luchd

togail nan creach" (robbers), who may have rebuilt that part of the castle which had been destroyed by the first invaders. Not being stationed at this part of the country, I had no opportunity for collecting traditions.

A writer in *Archæologia Scotica*, vol. i. p. 289, describes "Cromore, on the south-east coast of Lewis, on an island just large enough to contain it, and in a small lake there are to be seen the ruins of another circular fort, about 10 feet in height. When I visited it in September last"—(I infer this was in 1780)—"it was covered with small bushes bearing a red berry, and so thick that it covered the rubbish entirely from view. On examining it more narrowly, I found the area was occupied by several circular cavities, and the spaces between them filled up with stones. Whether this was formed in its original state, or in latter times for secreting their effects in moments of danger, I cannot know; but as I have not taken notice of any other, I rather believe the latter."

There is a view given from which it may be inferred that the dun is in much the same condition now as it was then; but a plan and section which are appended are quite fanciful.

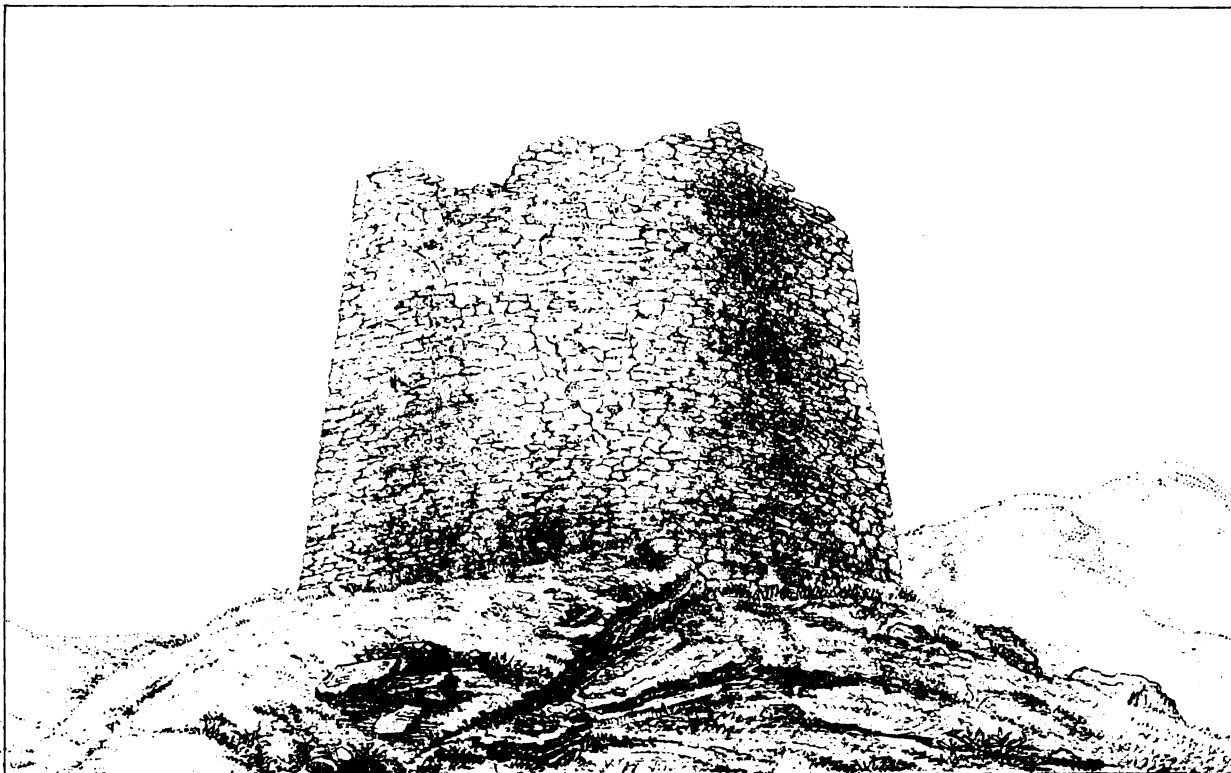
Dunan, Eilean Iubhard (= Ewart), Lochs, Lewis.

My only authority for this is the name upon the One Inch Ordnance Map.

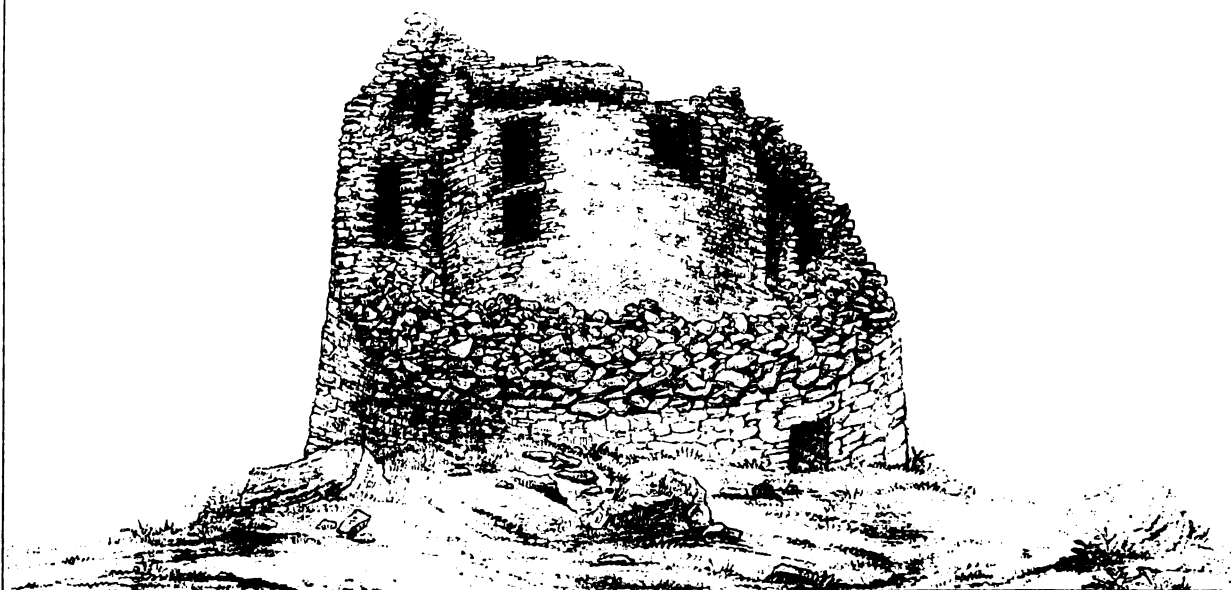
There is a portion of the parish of Lochs detached from the rest, upon the west side of Lewis, in which the following duns are situated.

Dun a Bheirgh, Siabost (in English, Shawbost), Lochs, Lewis.

Dun a Bherigh, *i.e.*, the Dun of the Berry, is a fortified peninsula on the sea coast, about 120 yards long, and 50 yards broad, which is naturally defended by cliffs; and was enclosed by a thick wall, 35 yards long (of which the remains may yet be seen), across the isthmus; the doorway through the wall was $3\frac{1}{2}$ feet broad and $2\frac{1}{2}$ feet high. Within the wall is another wall, at right angles to the enceinte, 8 yards of which can still be traced, through which was a covered passage, also $3\frac{1}{2}$ by $2\frac{1}{2}$ feet, and roofed by flags. There are ruins of "boths" against both walls, and Mr Macphail is of opinion that they opened into the mural passages. Details are wanting, but I expect this would be a very interesting remain if examined with care.



DUN CARLOWAY FROM THE WEST



DUN CARLOWAY FROM THE EAST

DUN CARLOWAY. LEWIS.

Dunan, Loch Carlaway, Lochs, Lewis.

This little dun has been on a very small salt-water islet, or peninsula at low water, in the narrows of Loch Carlaway; not a stone remains. The dun must have been very small, probably a simple wall circumscribing the islet.

Dun Charlobhaidh (pronounced Doon Karlovay), Uig, Lewis.

Dun Carlaway is situated in the northern part of the parish of Uig, on the west side of Lewis. It stands half a mile from the shore of Loch Carlaway, on the southward slope of a hill (Beinn na Duine = Castle-hill), which is 270 feet above the sea. The dun (Plate L.) is built on a slight spur, a little way below the summit. The site is somewhat steep upon the north, west, and south sides, but is rather flat on the north-east, and possesses no greater strategical advantages than may be found in numberless points about it. It is probable the presence of a spring has determined the site of the castle. The country around is a hilly moor, with a few patches of cultivated land.

Dun Carlaway is, after the Brough of Mousa, probably the best preserved of any of these ancient castles in Scotland, although one-half of it has been destroyed. When viewed from the southward it appears entire, and on that quarter has probably lost little of its original height. There is now no appearance of exterior works.

The external masonry is extremely well laid, without any mortar or cement, being what is technically called "dry-stone." It is formed of oblong blocks, entirely undressed, usually less than 1 foot thick and 2 feet long, there being from eight to ten courses in 6 feet of height. The "joints" are, of course, very wide, and daylight comes freely through even the bottom of the tower. At no time would there have been any difficulty in scaling the wall by driving pegs or "douks" into the joints to lay hold of.

The present height (1861) is 34 feet; nor do I believe it was ever more than 2 or 3 feet higher when complete. The batter or slope—which was measured by holding a fishing-rod horizontally from the highest part—is considerable, being $7\frac{1}{4}$ feet, or about one foot in five. Something

of this may be due to subsidence; but it will be conceived that a wall built nearly 40 feet high, without mortar, and of comparatively small stones, would require a large batter to be secure.

The diameter of the dun at the base is 50 feet.

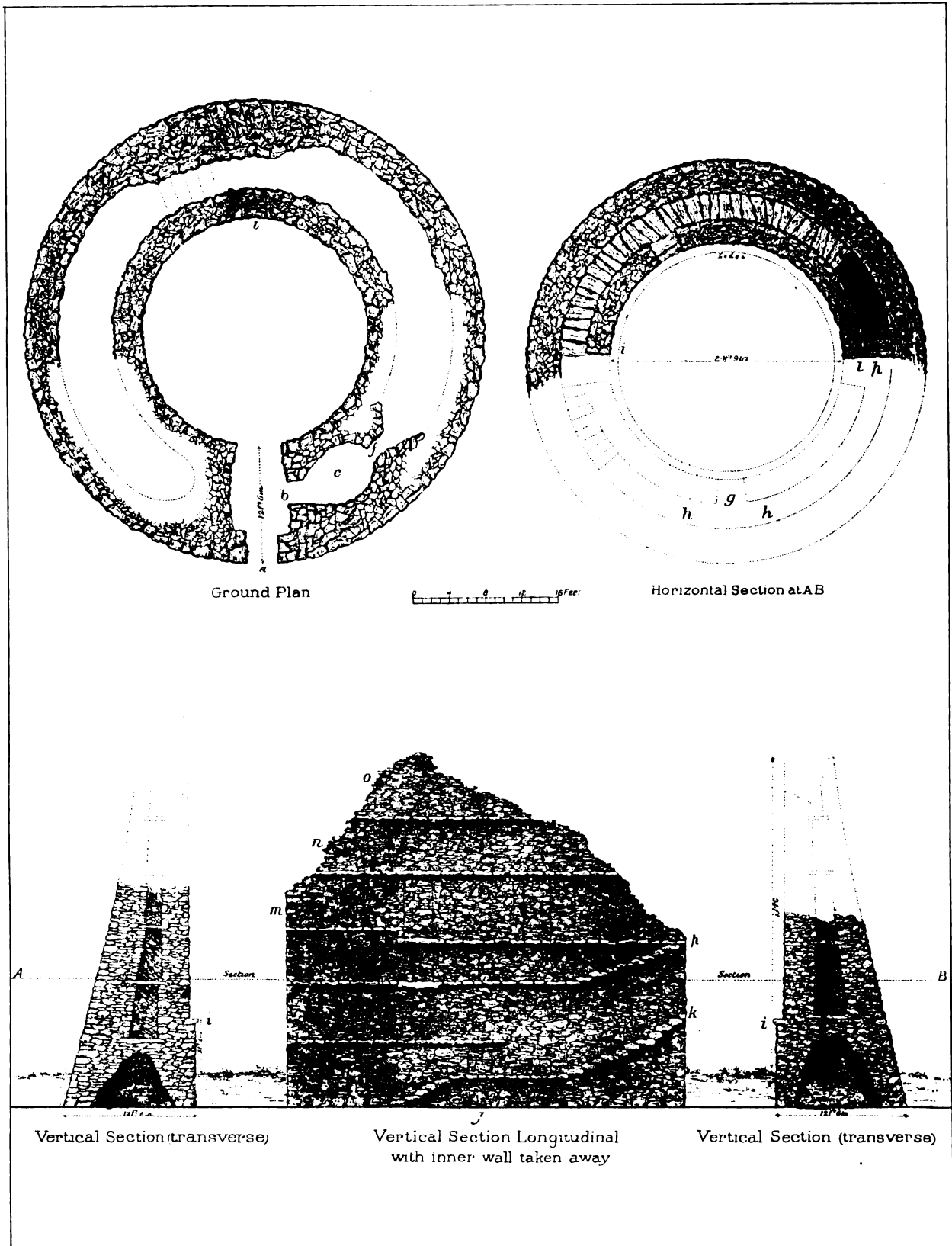
As usual with these structures, it is formed by two concentric walls, tied with horizontal tiers of flags at varying heights, by which galleries (corridors) are formed in the interspace; with shallow flights of steps communicating with the galleries and with the top of the tower. The outer wall is, generally speaking, broad at base, becoming thinner as it leaves the ground; but the inner wall is perpendicular on both sides, or nearly so, and about 3 feet thick throughout.

There are no opes in the exterior wall except the door (*a*), which faces the north-east. The doorway is 5 feet high, 3 feet broad, and crowned by the biggest stone in the building, it being 17 inches thick, 5 feet long, and 26 inches broad. (See the Plan and Sections in Plate LI.)

The doorway was blocked by fallen stones, and when these were removed, it was found that at 3 feet within the entrance the passage widens to 5 feet; but by the curving of the north side the inner end of the passage is again narrowed to $3\frac{1}{2}$ feet. The height of the inner passage is 6 feet. On the middle of the south side of the passage is a low doorway (*b*), 2 feet square, leading to an oval, beehive guard-cell (*c*), 6 feet high and 8 feet long, from which a passage (*f*) appears to lead to a ground gallery which goes round the base of the building. The main entrance, $12\frac{1}{2}$ feet long, is roofed by flags; and over it was an inner light or doorway (*g*) from whence a gallery (*h*) branched right and left.

Passing through the main-door passage we enter the area of the building, which is quite circular, and $24\frac{3}{4}$ feet in diameter. If there had been neither wooden floors nor roof to the dun, the internal area would have had a most well-like aspect, for the height would have been nearly twice its width. But all round the inner wall, at a height of about 8 feet from the ground, is a coping, corbel-table, or ledge (*i*), formed by undressed flat stones, projecting from 8 inches to 1 foot. This must have been either for a roof or for a floor.

Right opposite to the main door, at the height of 3 feet from the ground, is a doorway through the inner wall (*j*), $2\frac{1}{2}$ feet square. This lands on the floor of the second gallery, counting that on the ground-level as the first.



DUN CARLOWAY, LEWIS.

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Here, from irregularity in the masonry and the entire absence of an inner face, the outer wall is often but 14 inches thick, and the daylight comes freely through. To the left a flight of steps descends to the ground gallery. We were able to trace this gallery for three-fourths of a circle, the rest being blocked with rubbish. What is left of the second gallery is not continuously level, for the floor of all that lies east of the inner door, and some feet more, is 3 feet above the level of the floor on the west side.

Turning to the right, a flight of steps (*k*) leads to the third gallery on the west side, which is $2\frac{3}{4}$ feet wide and 7 feet high. At a quarter circle, the walls have been destroyed, so that it can be traced no further; but there appears to remain a jamb of a window (*l*) which lighted this gallery, and also No. 2. On the east side the floor of the third gallery is 12 feet above the ground and about 2 feet wide at the bottom. On the level have been three, perhaps four, oblong lights or windows; only one side of two remains, but the third is so far perfect, except for the subsidence of the masonry. It has much the proportions of a modern window, 4 by 3 feet, and the sides of all are perpendicular. On the west side of the middle window the gallery is so narrow at top, that one must crawl to pass through; and at the west end is a flight of stairs (*p*), which, however, are blocked and closed over by the floor of gallery No. 4. This is interesting, as showing that the builders changed their plan in process of construction.

The fourth gallery (*m*) had two lights at least; one was directly over the window below, 6 feet high and $2\frac{3}{4}$ feet broad; and another, one-eighth of a circle to the westward (see the View in Plate L.).

Of the fifth gallery (*n*), only a portion of the floor remains; the inner wall is thrown down to that level, but a piece of the outer wall (*o*) still reaches 5 feet higher.

No man could pass through the upper galleries, the inner sides being jagged and rough with the ends of projecting stones, in other words, the inner sides of both walls have no face; but the outside is smooth. The walls are often only one stone thick, and would stand but a short time but for the device of tying them with flags at an average of every 6 feet of height.

What at the time it was first seen I considered a very important fact, is that mortar of shell-lime, of which I produce specimens, was used about the doorway, and for several feet on each side. But I have met so many

proofs of reconstruction in those duns, that I now consider the lime-mortar marks a secondary occupation. It is, however, a curious fact, and is well worthy of the attention of those who are interested in this class of antiquities.

The area of the dun is filled with fallen stones. If ever it is cleared out I expect the indication of a well will be found, and almost certainly the ashes of *wood* fires.

I have been thus particular in the description of this venerable ruin, for it does not appear that it can last much longer; large portions of it are only supported by a crushed and broken stone. On one of my last visits to it, to compare the drawings and complete my notes, the wind, driving at 40 miles an hour, was making a fiendish chorus through and around the ruined walls. Not daring to go near it, for I was alone and had no ambition to be a martyr, I got a shelter near, and watched expecting to see the last of Dun Carloway. But it survived that storm, and I hope may do so for many years yet.

In a talk with a Macaulay, 75 years of age, and sixth in descent from Donald Cam, he asserted that Dun Carloway had tumbled down one hundred, perhaps two hundred, years ago, and that a pump led down from the dun to the lake (Loch an Duin), and that he had seen it. Of course, Macaulay was mistaken, but probably the traces of a drain from the dun existed then.

There has been singular blundering in the descriptions of Dun Carloway; the topographical writers of the seventeenth century do not notice these old forts. Martin does not name Dun Carloway, but he describes it very well, with the exception of a radical error in writing north for south. He says, "Some few miles to the north [*recte* south] of Bragar there is a fort composed of large stones, it is of a round form, made taperwise towards the top, and is three stories high; the wall is double, and hath several doors and stairs, so that one may go round within the wall."

A writer of the present century makes the serious mistake of describing Dun Carloway as "built circular and double-walled, the external one having *loopholes*, most probably for shooting their arrows through, and composed of different storeys. Some of them would accommodate a *hundred* or more men."

Another writer makes the singular assertion that Dun Carloway "was and is still covered with turf." He has been led into this error by having

heard the tradition of "Donald Caum M'Cuil's" (Dugald's son) ascent with two dirks.

In Lewis they have a tradition that when these towers were being built a row of men reached from the dun to the shore, from whence the stones were passed from hand to hand; and that the towers being conical, they were built to such a height that only a single stone or flag was required to close the top.

"Most of them [round forts] are entirely ruined, and no idea can be formed of their structure, but from the large one at Carloway, one side of which is entire [1781]; but as the other side appears to have been forcibly and abruptly torn down, it is impossible to examine the upper parts of it." The foregoing description will show that that impossibility has been overcome.

The true history of the origin of Dun Carloway is not to be expected now. The legendary tales of the bards connect it with the giants who were always getting the worst of it from the Fingalians. One "bard" informed the Rev. J. Strachan that "all the duns in Lewis were built by the Norwegians to fortify themselves against any enemy who might attempt to revenge the treacherous murder of the Picts. The dun of Carloway was built by *Dearg*, son of Nuadhairean, and is known by the ancient name of Dun Dheirg."

Unfortunately for the "unity" of this tradition, *Dearg* and Nuadhairean are both Gaelic names; the one meaning "red," and the other "silver-handed." From another source I learn that "Dun Carloway was inhabited by *Darge Mac Nuaran*. These four brothers (the others being *Kuoch*, *Glom*, and *Tidd*) were of prodigious size, and domineered over the whole country, so that the Lewis men were kept in great subjection."

To complete the history of the mythic builder of Dun Carloway, I have to add that his brother *Kuoch* (*Cuithach*) having been killed by the Fingalians, he (*Dearg*) followed those wandering heroes to Skye, and after fighting three days and a half, was killed by the Fenian, *Gall Mac Morni*, and buried there. I suppose *Dearg* had another establishment in Skye, as *Martin* records a "Dun Derig" there.

We make a long skip before having anything more to tell about Dun Carloway, till at the beginning of the seventeenth century, "Donald Cam Macaulay and a famous blacksmith called the *Gow Ban* (*Gobha Ban* = Fair Smith) went to the Flannan Isles in summer; when the *Morrison*s of Ness, hearing they were away, came and seized all their cows that were on the *Uig* moor. None dare offer resistance to the *Morrison*s, but on the return of the *Macaulay*s their wives met them on the beach to tell them of the foray. The *Macaulay*s at once crossed *Loch Roag* in pursuit, and on nearing Dun Carloway they saw their cattle grazing there, and guessed from that the *Morrison*s were in the castle. The *Macaulay*s rested that night on a hill close by,

and early next morning Donald Cam and the Smith went out to reconnoitre. Not far from the dun was a fire, over which rested a large kettle, wherein was a whole carcase of one of the cows plundered by the Morrisons; and the cook was asleep near it. Donald Cam told the Smith to hold the man till he took the meat out of the kettle, which he did. As soon as the beef was out of the kettle the Smith threw the cook into it. The beef was put into the Smith's plaid, and carried to the Macaulays for their breakfast. Donald Cam then stalks the sentry at the door of the dun and kills him. The Smith is directed to prevent escape by the door, while Donald Cam climbs up the walls by means of two dirks or daggers, using them as steps, changing them by turns until he got to the top of the uncouth edifice. This dun, upon a superstructure at the top, is closed by a large flag (?). When Donald Cam got to the top he told his men to pull heather and make it into large bundles; these he threw into the area of the dun, and, calling for fire, he sets light to the heather, and smothers and burns all the inmates. Donald Cam then demolished Dun Carloway;—that old fabric, built in the fourth century by a giant, called Dearg Mac Nuaran. There are two similar duns in the parish of Uig, built and inhabited by two brothers of Dearg, named Kuoch Mac Nuaran and Tidd Mac Nuaran." Mr Morrison here forgets the third dun and brother Glom.

Dunan, Loch an Dúnain, Carloway, Uig, Lewis.

On the west side of the road between Carloway and Callernish, and about a quarter of a mile to the southward of Dun Carloway farmhouse, is a small lake, Loch an Dúnain (Lake of the Small Fort), in which is an island about 15 × 20 yards in extent, and which in summer is connected to the mainland by a natural causeway. The fort or dun is, in this instance, merely an irregular wall from 3 to 6 feet thick, of very rude masonry and without mortar. The wall encloses a roughly oval space 30 × 25 feet. The present height of the wall is 6 feet, or 10 feet above the *terre pleine* of the island, and it was probably 3 or 4 feet higher. The entrance shows some strategic ingenuity. It is placed at the south-west corner, the furthest removed from the way into the island, and instead of being pierced directly through the wall, it is cut obliquely through the masonry, by which the passage is lengthened to 8 feet; and as it was in all probability roofed and low, and possibly had a guard-cell on the south side (but the masonry is too much dilapidated to afford any certainty on these points), it would be a tolerably secure gateway, $2\frac{3}{4}$ feet wide, when defended by determined men.

Dun (?), Loch Bharrabhat, Breascleit, Uig, Lewis.

The name Barrabhat (=Borgarvatn) implies that a dun or borg was in this lake.

Berisay (written in Gaelic, *Bereasaigh*; pronounced *Berisay*, for *Byrgis-ey*, Norse = *Fortified Isle*), *Loch Roag*, *Lewis*.

A large gulf or estuary, full of islands, on the west side of Lewis, has acquired the name of Loch Roag, though that name really belongs to a narrow inlet or voe, in the entrance to which is a dangerous tidal "strom" or rapid, and which is now called Little Loch Roag. The greater Loch Roag is nearly filled by the large island of Berneray; and off the north end of Berneray, in the open sea, are many small islands, and among them is Berisay. It was at sunset on an autumn evening that I pulled past this island fortress, and I had every wish to examine the scene of nearly the last act in the bloody drama of the "Conquest of the Lewis"; but the sea was up, it was already nearly dark, and my vessel was several miles away; so after a good look at its craggy sides, I reluctantly bore away for Loch Carloway. It seemed a dreadful place to live on, for in winter there must be weeks and even months in which, by reason of the raging sea, no boat could land upon it; yet it was here a brave, treacherous, and bad man held out against the superior fraud and violence of the Tutor of Kintail.

Berisay is a craggy islet, one-tenth of a mile long and half as broad, surrounded by mural cliffs about 100 feet high, with an "acarsaid" or landing-place on the south-west side and the ruins of huts upon the *terre pleine*. The highest part of the rock is 175 feet above the sea. Berisay is exposed to the whole force of the Atlantic Ocean, for it receives no protection from the small island of Sean Bheinn (pronounced Shenna Ven = Old Hill, but properly Garbh-eilean = Rough Island) which lies half a mile outside of it. On the other hand it is the beau ideal of a pirates' nest, commanding a view of half the horizon, impregnable, and near a frequented harbour.

Sir Robert Gordon informs us:—"The Lord of Kintayle was exceeding glaid that he had now at last caught his long-wished for and expected prey, and therevpon he went into the iland [Lewis]. Presentlie after his landing their, all the inhabitants yielded vnto him, except Neill Macloyd, with some few others, who, fatallie favoring the declyn- ing syd, still persisted, unfortunatlie, contrarie vnto all such as did aym to possesse that iland; and so, consequently, now to the Lord of Kintayle, to whom the rest of the inhabitants did yield the more willingly, becaus he wes their neir nighbour, and might still vex them with continual incursions, if they did stand out against him, which the vndertakers [Fife Adventurers] were not able to doe. Neill Macloyd was now forced to retire vnto a rock within the sea, with his nepheu Malcolme, William,

and Rorie (the thrie sones of Rorie Oig), Torquill-Blair, his four sones, and thertie others. This rock was called Berrissay, a fort invincible, vnto which Neill was accustomed some yeirs to send alwayes provision of victualls, and other things necessarie, that it might be a retreat vnto him vpon all occasions, in tyme of his greatest necessitie. Neill kepted this rock for the space of thrie years, dureing which tyme the Lord of Kintayle dyed, the yeir of God 1611. The nixt yeir following, which wes the yeir 1612, Neill Macloyd went from Berrissay, with his train, into the Lewes, for to refresh themselves vpon the land; wher the Clanchenzie, accompanied with some of the inhabitants of the iland, invaded them; bot Neill escaped their hands, and retired with his company to the rock off Berrissay. Then the Clanchenzie gathered together their wyffs and children of those that were in Berrissay, and such as, by way off affinity and consanguinity, within the iland, did apperteyn to Neill and his followers, and placed them all vpon a rock within the sea, wher they might be heard and sein from the rock of Berrissay. They vowed and protested that they wold suffer the sea to overwhelme them the nixt flood, iff Neill did not presentlie surrender the fort; which pitifull spectacle did so move Neill Macloyd and his company to compassion, that immediatie they yeilded the rock, and left the Lewes; whervpon the women and children were rescued and randered.

"Then Neill Macloyd, retireing out of the Lewes, went into the ile of Heris, wher he remained a whyle in secreit; and not being able to keip himself longer ther in these bounds, he rendered himself vnto Sir Rory Macloyd of Heris, whom he intreated to bring him to his majestie in England, which Sir Rory undertook to doe; who coming to Glasgow of intention to imbarke ther for England, he was charged vnder pain of treasone, to delyver Neill Macloyd to the privie counsell. Sir Rory obeyed the summonds, and presented Neill Macloyd, with his sone Donald to the counsell, at Edinburgh, wher Neill was executed, in Aprile, 1613 yeirs. His sone, Donald-Mack-Neill, was banished out of the kingdome, who presentlie went into England, and ther remained thrie yeirs with Sir Robert Gordoun, tutor of Southerland [the author of this account], and from England he went into Holland, wher he died.

"Dureing the time that Neill Macloyd keiped the rock of Berrissay, ther arryved an English pirat in the Lewes, who had a ship fraughted and furnished with great wealth. This captan (called Peter Love) entered in freindship and familiaritie with Neill, being both outlawes; so they thought, by joining ther forces together, to be masters of the Lewes both by sea and land; bot after the pirat had stayed awhile in the iland, he and all his men wer taken prissoners by Torquill Blair and his sonnes, and wer sent, together with the ship, by Neill Macloyd, to Edinburgh, vnto the privie counsell, thinking therby to get his owne pardon, and his brother Tormot Makloyd released out of prison; bot neither of them did he obteyne; and all the Englishmen, with their captane, wer hanged at Leith."

The indictment of Neill Macleod, after charging him with many atrocities, thus concludes:—"And finallie, ye, the said Neill, in regaird of your former abhominable lyfe, feiring your awin apprehensioun, and haifing, for your griter suretie and releiff, fled of the Mayne and Continent-land to ane Craig callet Birsay, ane myle within

ane Loche, quhilk ze mannit and fortifeit with men, munitioun, and all manner of provisioun for zour intertenement; and haifing tua boittis provydit, for zow and zour complices passage and repassage fra the land to the said Craig, ze, with zour associattis, during zour abyding within the said Craig, and keiping thairof, come a land, and run dyuerse furrowes [forays] throw the cuntrie, and in maist thiftious maner staw, reft, and away-tuik with zow, to the said Craig, dyuerse guidis and bestiall fra the inhabitantes of the cuntrie about, namelie, fra Gilliechallum M'allaster Coule [slender] and Gilliechallum M.Coneill [Malcolm Macdonald], fra ather of thame, tuelff kye and oxin; quilkis, with dyuerse heirschapis of coirne, victuall, and vther necessaris, stowin and reft by zow, was transpoirtit be zow to the said Craig, in maist thiftious maner; whairupoun ye dispoit and entertencit zour selfis at zour plesour."

The trial took place on the 30th March, 1613, and he was sentenced "to be tane to the Mercat-croce of Edinburgh, and thair to be hangit vpon ane gibbet, quhill he be deid; and thaireftir, his heid to be strukin frome his body, and affixt and set vpon ane priket, aboue the Nether-boll Point of the said burgh;—"

The execution must have taken place in less than a week, for Sir Thomas Hamilton, Lord Advocate, in a letter to King James VI., dated 7th April, 1613, says, "Neill Macloyde died at his execution verie christianlie."

A manuscript history of the Mackenzies, written apparently between 1657 and 1678, states that the Tutor of Kintail and Alexander Mackenzie of Coul took forces to the Lewis, and passing to the west side, planted some men on a rock that was within shot of Berisay, on which Neill did kill a man of theirs, called Donald Mac Conichie vic Finla Glaish, and wounded — M'Coull Rory vic Finla Glaish; and adds that, "at last Neill was obliged to leave Berisay," but very significantly says nothing about the Mackenzies placing the wives and children of the garrison upon a half-tide rock.

"Within the mouth of Loch Carlvay lyes the small Island Garve [now Old Hill]; it is a high rock about half-a-mile in compass and fit only for pasturage. Not far from this lyes the Island Berinsay [a misprint for Berirsay], which is a quarter of a mile in compass, naturally a strong fort, and formerly used as such, being almost inaccessible"—such is Martin's account of it.

Dun Bharabhat (in English, *Dun Burravat*), *Great Berneray, Uig, Lewis.*

Dun Bharabhat (pronounced Varavat) is situated about the middle of a large lake in Great Berneray, on a small islet, 20 fathoms from the grass-line. It is approached by the usual row of stepping-stones, but in this instance the door of the dun does not face the causeway. The dun (Plate XLVIII.) fills the whole island. It is now little better than a heap of stones; on the east side, however, the wall is still 14 feet high. The plan of what remains can only be understood by supposing that but one-fourth of the enceinte is original; the remainder being of subsequent formation. The ground plan of

the original dun was not circular, for what remains of it is not the segment of a circle ; it probably, in some degree, followed, like the present ruin, the outline of the little island. The present dun is of an irregular four-sided figure, with curved sides, undulating, however, on the west. The longest diameter of the dun is 47 feet, the shortest 40 feet.

The door of the dun is at the north corner, from thence the west side is hardly traceable ; but I do not believe it is other than a solid wall, without cells or passages ; this wall appeared to be from 8 to 5 feet in thickness.

The south and east sides have likewise been solid walls ; at the east corner the old work begins and continues to the doorway. This part is very interesting, the exterior masonry is as good as is usual in the "Pictish castles." From the area there is no apparent entrance, at the ground level, to the galleries in the wall ; but there is a broad coping or cornice, formed by flat stones projecting from 8 to 14 inches, and which, I do not doubt, supported a floor. Above this coping are two doorways ; the eastmost (*c*), which is $3\frac{1}{2}$ feet high, and 2 feet 5 inches wide, lands upon the roof of the ground gallery, and, on the left hand, a flight of steps descends to the ground, but is then blocked, as is shown at (*d*). This forms a cellar, for there is no exit into the area. On the east side of the door, the floor continues for 4 feet, and is then ruined.

The second doorway (*e*) is 4 feet high and $2\frac{1}{2}$ feet wide ; on entering the west side is blocked at once, the wall here being solid, and nearly 8 feet thick ; turning to the right the slabs are flat for 5 feet ; then a flight of steps (*f*) leads to the third gallery, which is perfect for 9 feet.

Over the westmost door is a third ope or window (*g*), which led to or lighted the fourth gallery. The roof of the third ope formed the floor of a gallery, from which a descending flight of stairs (*h*) appeared to have led to a gallery over the main entrance, but this part has been removed. The system of opes and galleries in this dun is very curious, and shows that these ancient towers are not mere copies of another, although the observer soon perceives a great similarity in style and method.

The area of the dun is filled with displaced stones, and overgrown with brambles and honeysuckle ; but we traced part of a wall of a rectangular hovel which had, no doubt, been a refuge for some turbulent spirits in mediæval times.

I have learnt no traditions connected with this dun.

Dun Bharaglom, Baraglom, Berneray, Uig, Lewis.

A low mound marks the site of this dun, and in winter, when the grass and weeds by which it is covered in the summer season are withered, the foundation stones can be traced all round it. The material of the dun was taken by the crofters to build their cottages, but the hamlet is now cleared off.

The bardic account of this castle is that it was built and inhabited by a giant, named Glom; who, as well as his brother, Teed (Tíd), would not go out to fight the Feine, feeling secure from their attacks on account of their insular position.

Tídaborragh (Dun) Kirkabost, Berneray, Uig, Lewis.

The foundation of Teed-brough is on a rocky knoll, which is steep on the west side, and at about 40 fathoms from the shore. The dun was about 60 feet in diameter, but only a small piece of the wall on the south-west side was left; a house was then being built out of the ruins, in which, if I mistake not, tempered clay was being used in the place of lime-mortar.

The bards tell that this dun was the abode of Teed, the brother of the giants mentioned above.

Dun, Loch Bharrabhat, Kneep, Uig, Lewis.

The lake is halfway between Kneep and Meavag.

Dun, Loch Bharabhat, Croulasta, Uig, Lewis.

This dun was on an islet in Borgar-vatn, near Crolesta; and must have been very small.

Dun Cuithaich (pronounced Ku-ik), Uig, Lewis.

This dun, called Dun Bhorranis on the Ordnance Map, stands upon a small semi-islet in the sands of Uig. The islet is separated at high water from the mainland or point of Boranis by a narrow and shallow channel; but which at ebb tide is left dry, except where a small stream wanders through the sand.

The dun is a mere heap of stones, but sufficient remains to show it was

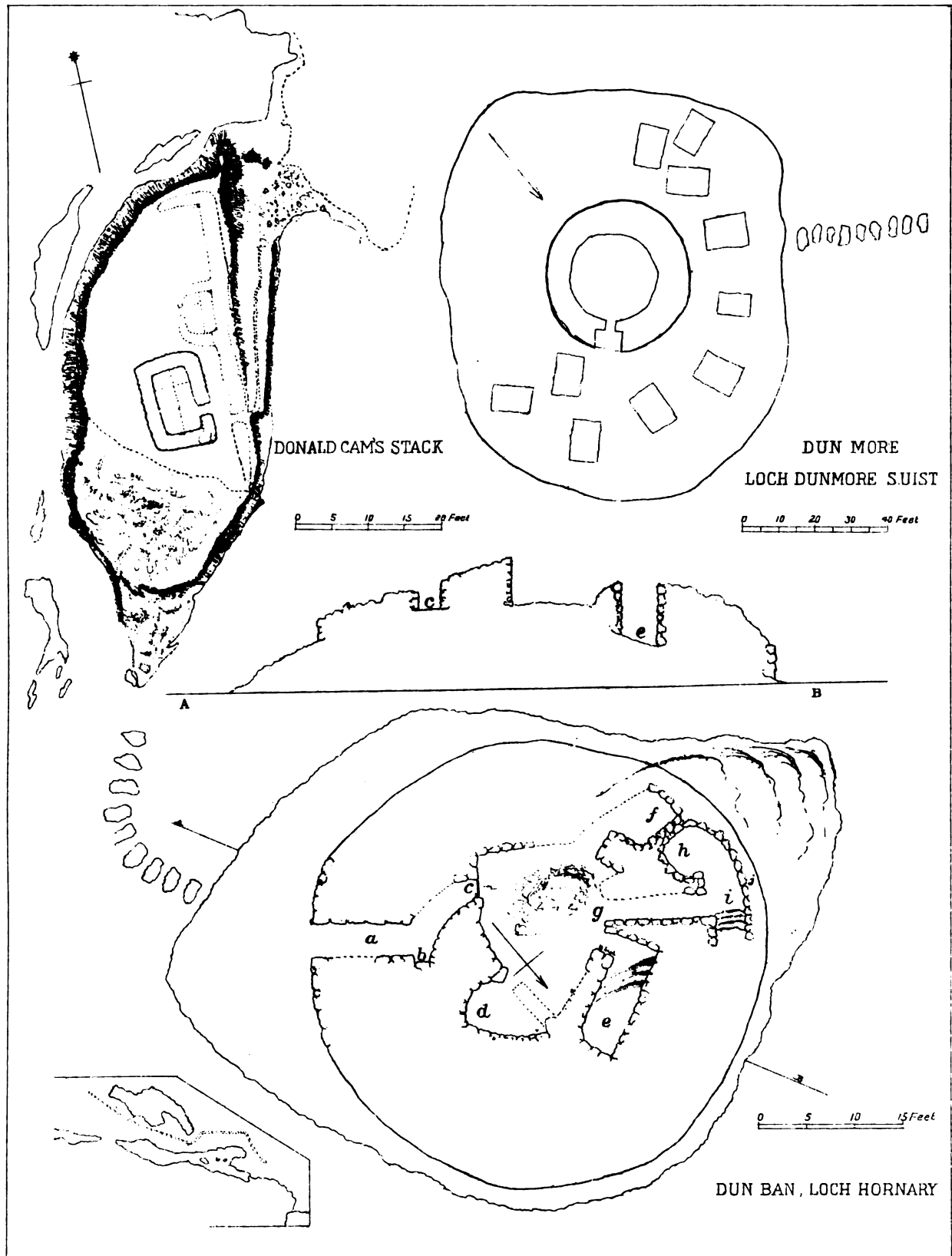
a Pictish tower, with walls from 7 to 12 feet in thickness. It is peculiar, however, in not being circular, but oval, in plan; the respective diameters being 45 and 60 feet. My assistant, the late Mr John Morrison, made the plan and view. I have seen the place in passing, but had no time to examine it.

This dun, according to tradition, was the abode of the famous giant, Cuithach Mac Nuadharan (pronounced Nu-ag-aran, in Lewis)—the only hero who ever made the Feine retreat even one step; but his valour did not save him, as the following genuine Ossianic tale, abridged from Morrison's Traditions of Lewis, will plainly tell:—

Many centuries ago the giant Cuithach inhabited a fort or dun in the Mains of Uig, whereof the ruins may still be seen. At this time, three other brothers, equally gigantic, occupied the duns at Dun Carlaway, Tidbury, and Ballyglom, and these four giants bore sway over all the country.

Fingal and his army, hearing of the oppression used by the giants, came to Lewis; and because Cuithach was the strongest, it was decided to march to Uig and give him battle. The Fingalians posted themselves upon an eminence at Penny-Donald, within a mile of the dun. Now, it was a maxim of the Fingalians to give fairplay to their enemies, and although they should be all killed one after another, never to oppose more than man to man.

The giant had a clear view of Fingal's army, but had such confidence in himself that he would not trouble himself to fight them, but marched down the sands with a forked spear to fish flounders. On the following day Fingal marched his army close to the dun, but this did not provoke the giant to engage in battle. This was repeated for a week, when Toskir (Oscar) proposed to go sporting on the hill, and asked the loan of "Mac Luinn," that is, the sword of his grandfather, Fingal. But Fingal said, "What shall I do if the giant comes out to engage me, while you are away with my sword?" Tosker replied that he would only sport upon the adjacent hill, and that if the giant came forth they had only to blow the strongest whistle, and he would be back in a moment; so Tosker got the sword. But that very day, when the Fingalian army marched, as usual, on to the sands in front of the dun, the giant came out and appeared as if he would cross the sands to the army of Fingal; his appearance was so terrible that, in spite of their bravery, the whole army fell back one foot—Fingal himself not excepted. The giant seeing the Fingalians so intimidated by his appearance, resolved to give them battle next day. When the army marched to the sands, as usual, the giant walked across the brook, and although from his enormous size he was frightful to behold, the army stood firm at the command of their leader, Fingal. The giant asked would one or more engage with him at a time. When Fingal replied that they always gave fairplay, the giant said, "Well, then, let one of you come to me." Fingal advanced, but was heard to utter a groan for the want of his trusty weapon, Mac Luinn.



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The strongest whistle was now blown, and Tosker quickly returned; but when he arrived, Fingal had been brought to his knee by the awful sword-play of the giant. Tosker seeing the imminent danger of Fingal, said to him, "Come you out, and let me engage him with the never-failing weapon, Mac Luinn." Tosker, who was never conquered in battle, had, by the third stroke, completely severed the head of the giant from his body, and in this way was Ku-och M'Nuaran killed on the Mains of Uig, where his grave, 14 feet long, with a stone at head and foot, may be seen to this day.

Mr Morrison might have added that the marks of Cuithach's shoulders are still seen in the cliff against which he was driven when fighting with Oscar.

Dun Gormsuil, Carnis, Uig, Lewis.

Carnish is on the south side of the bay of Uig, but I have no information concerning this dun.

I have heard that there are a great number of shallow stone dishes lying about at Carnish.

Stac Dhomnuill Chaim, Mangursta, Uig, Lewis.

The sea coast in the neighbourhood of Mangursta is cliffy, broken, and romantic, and faced by numerous detached and semi-detached rocks and islets. One of these bears the name of Donald Cam's Stack, or Stac na Berighe. It is about 100 feet high, and on the top is not more than about 20 yards in length. A deep ravine cuts it off from the shore, with which, however, it remains connected with a rocky isthmus. The rock is otherwise surrounded by the sea, and is quite inaccessible, except on the land side, where a narrow path leads up the steep brae. A wall, from 4 to 5 feet thick, defends it on the land side, in which, at the south end, there is a gap or gateway, 2 feet wide. The gate would be extremely dangerous to force, as the cliff is close in front of it. There are the ruins of a cottage, $18\frac{1}{2}$ by 10 feet interiorly, and the walls $4\frac{1}{2}$ feet thick, on the *terre pleine* of the rock, as also a sheep-pen attached to the wall. Only in very fine weather can boats land at Mol Garbh, or Rough Beach of the isthmus. (See Plate LII.)

It was to this pinnacle that the Uig hero, Donald Cam Macaulay,

retired, on the conquest of the Lewis by the Mackenzies. This name is still a household word in Uig, and they tell how his daughter (Anna Mhòr = Big Anne, I think) used to carry water to her father on her head, her hands being required to assist her up the dangerous pathway. This occurred in the first quarter of the seventeenth century.

I do not know that this rock was used as a castle before Donald Cam's era, but from its natural capabilities it is highly probable.

The parish of Uig must, in ancient times, have been of great relative importance; besides the numerous fortresses described above, there are six Tursachan or stone circles within a radius of two miles. When viewing these monuments, one is lost in wonder to see them in such a place, and the impression becomes confirmed that the physical, as well as the ethnic, conditions, must have greatly changed since the time when they were erected.

Dun, Loch an Duin, Scalpay, Harris.

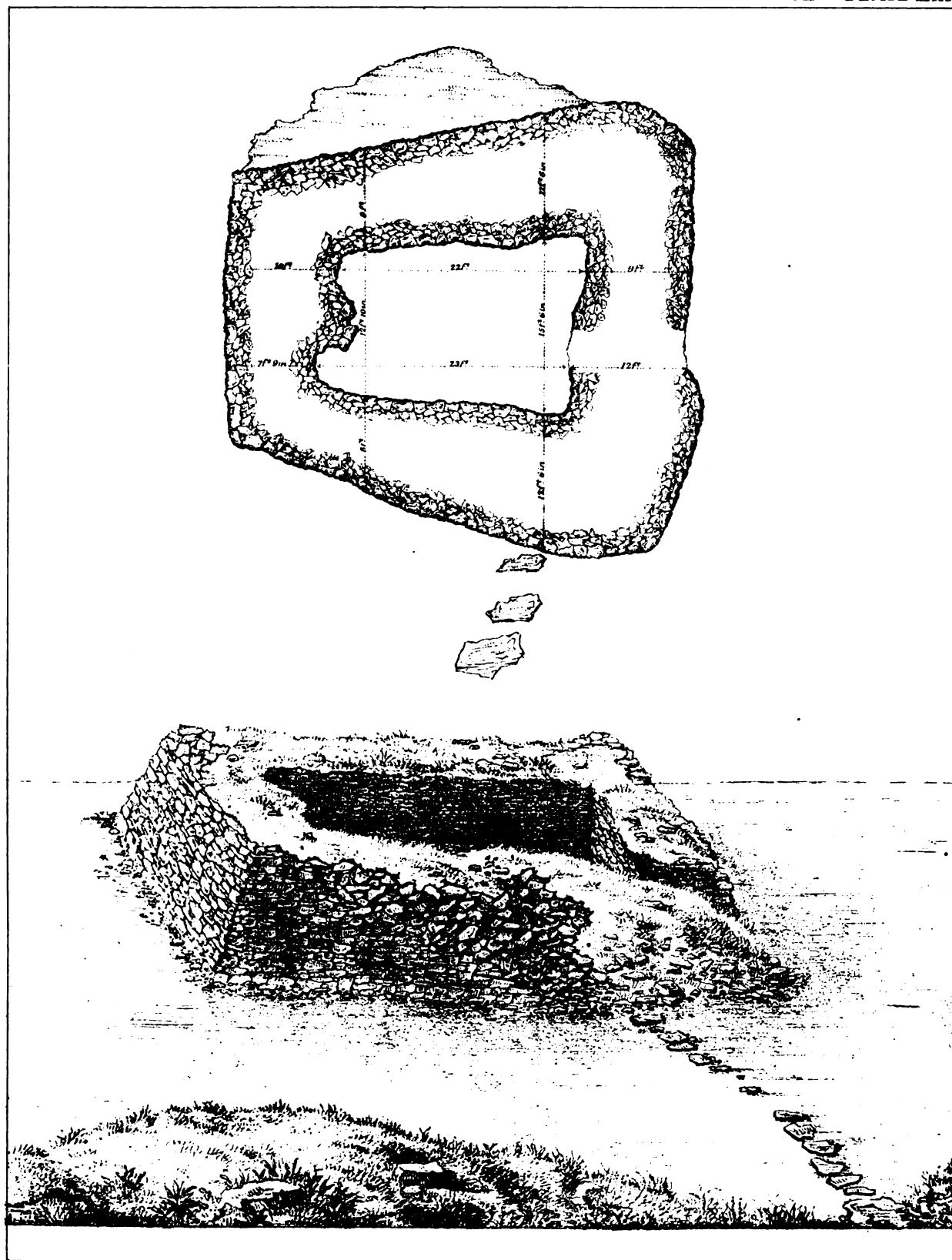
The lake is in the middle of the island; as far as I could see from the adjacent shore, the dun, on a rocky islet, was very small and not round.

Lios? Luskentyre, Harris.

The name appears to indicate that there was a lios or lis, that is, a circular fortified place at "Lios-cinn-tir," which would mean "Headland-fort." As it must always have been an excellent farm, there would certainly have been a defensive structure in it.

Dun Bhuirgh, Borne, Harris.

This has been an important "Pictish castle," but is so dilapidated that no details could be made out. It stands on the spur of a hill, at some distance from the coast. The dun was circular, and enclosed by an outer wall (which is still apparent), probably to include a supply of water and protect the cattle. The duns on islets could have received but few cattle.



DUN LOCH-AN-DUIN, TARANSAY, HARRIS.

Near this dun are two standing stones (Menhirs), and to the northward, at Nesibost, is a large menhir called "Ord Bhearnaich" or the "Limpit Hammer," and a Picts house; and at Haugarbost, a cromlech.

Dun na Caillich, Loch Langabhat, Harris.

The "Long Lake" is in the middle of the district, and in very dry weather the "stone footpath" to the "Old Wife's Dun" can be distinctly seen.

Saint Clement's Dun, Rodil, Harris.

The dun is said to have been round. The name is taken from the adjacent Priory, dedicated to St Clement.

Dun Borigidh (Borigee), Strond, Harris.

Dun Innis-ghall, Carminish Isles, Strond, Harris.

The name implies the "Island of Strangers," who, of course, were enemies.

During the Highland destitution, the people trenched a piece of ground near this dun, when several flint arrow-heads were turned up.

Dun, Loch an Duin, Taransay, Harris.

This dun (Plate LIII.) is upon a very small islet in a lake, about the middle of the island. It is of a very unusual shape externally, being a rude square in plan, about 40 by 40 feet; the wall, plain and solid, without mortar, is 10 feet thick, and encloses an open space, 20 by 12 feet. There is no indication of a doorway or other opening, and I do not doubt the entrance was six or more feet from the base, and landed on the first floor. It is remembered when the walls of this dun were 15 feet high, but it is not more than 6 or 8 feet now. The dun is approached by stepping-stones, and as the water flows up to the foot of the walls, there was but little room for an adversary to make an attack.

Dun Rhàtha, Taransay, Harris.

Dun Rhàtha (pronounced Raw), also called Dun an Oir, or the Golden Dun, was built upon a large, steep hillock, perhaps 60 feet high, close to the shore upon the east coast of Taransay. On the level top (see View) we traced a circular wall-face, 50 feet in diameter. There were indications of small enclosures outside the wall of the dun (but probably they were not original), and of circumscribing wall or ramparts.

There is a tradition that some golden ornaments were found here. Hence its name, Dun an Oir; but it is more generally called Dun Rhàtha, and is the only instance, within my knowledge, of a place of defence in the whole Long Island bearing the Irish name, Rath.

Taransay is an interesting island to the antiquary. Besides these two duns, the island is named after St Taran; the site of his church is known, and the simple cross that decorated it is now in the National Museum of Antiquities. Within a stone's throw is the ruin of Teampull Cè, the saint here being, undoubtedly, a lady; for if any male was buried in her cemetery, he was found above ground on the next day. And the same thing happened if a female intruded upon St Taran's resting-place. Both these chapels are at Paible—a name, Papu-li = Priests' lea—that tells that the Northmen found Culdees here. There was another church at Uidh, of which no trace is left, but an ancient Latin cross engraved on an upright gneiss-pillar points out its cemetery. Both here and at Paible bronze brooches and bone pins are frequently found, that were the fastenings of the grave clothes in which the people were interred—for wooden coffins were not used in these islands till recent times. At Paible, by the shore, is a hypogeum or subterranean cave, in which I do not doubt the holy men often hid their good things from their many enemies, Keltic as well as Teutonic.

Dun Ruadh, Killigray, Sound of Harris.

The Red Dun is said to have been on the middle of the island. It is marked "Dunan," i.e., Little Dun, on Johnston's map.

Dun Pabbay, Sound of Harris.

The dun was on the south side of the island.

Dun Borge, Berneray, Sound of Harris.

On the south side of the island; an old circular dun, containing wall-passages and galleries. All the stones were carried away for building materials.

Dun Mac Lathairn, Groatay, Sound of Harris.

Dun Mac Lathairn, *i.e.*, the castle of the son of Loarn, is on a detached rock, on the west side of Groatay. The island is at the south end of the Sound of Harris, and close to North Uist.

Dun Ban, Loch Horneray, Grimsay, North Uist.

In ancient times all the land which lay between the Sound of Barra and the Sound of Harris was known by the name of Uist; and indeed it is so far one island now that a man can walk at low water from one end to the other of it. It is quite possible that when the land received the name of Uist, it was but one island at all times of tide. At present it forms the three principal islands of South Uist, Benbecula, and North Uist, together with several thousand lesser ones. From the mountains of South Uist, along the east side, to the Sound of Harris, the appearance of the country suggests a recent and gradual subsidence, which is still going on. At high tide the sea flows into the interior of the country, among the swells and green hillocks of the Laurentian gneiss, in an extraordinary manner, and makes brackish water in many of the lakes. Such a country has an amazing number of those defensive points, which suited the genius of the fortification in mediæval and pre-historic times; and in Uist, taken as a whole, in a length of 57 geographical miles, I believe there have been, at least, a hundred defensive structures.

Grimsay is one of those geographical portions for which the English language has no descriptive term; it is an island for six hours, and part of North Uist for the next six. When attending church-service at Carnish no eloquence of the preacher could match the stern necessity of the rising tide, as the flood began to cover the sand which lay "between us and our hame," an increasing uneasiness came over us semi-islanders, which was soon communicated to the pulpit, and brought the discourse to a close, or there would have been a general stampede, without a blessing.

Loch Horneray has no features differing from several small lakes in Grimsay, it is half a mile long, and may average one-tenth of a mile in breadth. There are several rocky islets in it, on one of which the *Osmunda regalis* grows. But towards the east end is a little rock, about 50 feet in diameter, rising to a little peak about 12 feet high towards the centre. On this rock is Dun Ban, which, when I first saw it, was a huge cairn, covered with brambles and sweet herbage. When the wind was too high for surveying, a party from H.M.C. "Woodlark" was sent to excavate it, and as the ancient causeway was impracticable, a small boat was carried to the lake.

The rugged rock, on which Dun Ban is built, is 16 fathoms from the shore, and there is 9 feet of water in the channel. A causeway has been formed by throwing stones into the water, and then placing stepping-stones, about $1\frac{1}{2}$ feet apart, upon the causeway—originally, no doubt, they were above the surface of the water, but now, as in many other instances, they are overflowed. A curious idea is common among the Hebrideans, that one of the stepping-stones, called the Monitor or Warning Stone, was so balanced as to make a clatter when trod upon, by which warning was given of the approach of friend or foe during darkness. The belief is general, and it may have been so, but the fact of a stone being now loose or unequally balanced is no proof after the great lapse of time since these stones were laid. The causeway, in this instance, shows some ingenuity in its contrivance, for instead of advancing straight from shore to shore, the line of direction would, if continued, pass clear of the island, but when near the island it turns sharply towards it, by which means the approach is well flanked.

Dun Ban (Plate LII.) is unique in its construction, and may be called a fortified "Picts-house"—using that term in a technical sense—and may be described as an agglomeration of beehive cells imbedded in a circular tower. The foundation is very uneven, and there has been no attempt to level it. The peaked rock rises and protrudes in the central area of the dun, and slopes in one of the chambers at a steep gradient. The entrance passage is opposite to the causeway, and was no doubt roofed with flags. A horrid practice exists in these islands of ruining these ancient buildings by robbing them of their flagstones, to serve for the lintels of doors and windows to the wretched cottages.

From the landing to the doorway of the dun the rock is clear for $13\frac{1}{2}$ feet; from the doorway the passage rises gently for some feet.

The entrance passage (*a*) to Dun Ban has been at least 3 feet high, is 3 feet broad, and straight for 11 feet, where, on the east side, is a recess (*b*), which was apparently the usual guard-cell. The passage then curves to the left for 8 feet, and narrows to $1\frac{1}{2}$ feet at what was the inner door, where there is a step (*c*) down into the court or area of the dun. The area is of a very irregular figure, with a breadth of about 11 feet; and is largely occupied by a protruding peak of rock which rises 4 or 5 feet above the floor of the area.

Around the court are four beehive cells in the thickness of the wall. They are extremely rude, and when complete were roofed by overlapping stones. In a few places yet remaining the walls begin to come in to form the dome. The height of the centre from the floor was probably 8 feet. Of course a hole was left in the apex for the escape of smoke if the area was not roofed over. The cells were entered by doorways about $2\frac{1}{2}$ feet square; the first (*d*) with a floor of about 24 square feet; the remaining wall is still 4 feet high. The second (*e*) is quadrangular, 11×4 feet, but instead of having a flat floor it is little better than a large hole 3 feet deep. The natural rock here slopes rapidly towards the water, and accidental ledges form a sort of steps down into the cell. The cell (*f*) on the north side is nearly quadrangular, and contains about 16 square feet. Opposite the main entrance, across the court or central chamber, is the entrance to a steep descending passage (*g*), 13 feet long, one of the sides being still 5 feet high; at its termination on the south side is a cell (*h*) of the same size and figure as some of those in use in Lewis at the present day. Opposite to its doorway, part of a rude staircase (*i*) yet remains, which leads to the battlements or roof of this strange castle. An inspection of the ground-plan will show, that while for about $\frac{7}{8}$ of its circumference the enclosing wall is from 10 to 14 feet in thickness, yet for about 9 feet the wall is extremely weak, being, in fact, hardly 2 feet thick; but it is to be observed that this side is furthest removed from probable attack, and that there is not room for more than two or three men to stand in front of the wall without falling into the water.

No relics of importance were found in this dun; there were broken craggans, as rude as those still made in the west of Lewis (of which there are specimens in the Museum), and which were probably in common use throughout the islands a century ago. As they differ but little from the urns (which a Highlander would call craggans) found beneath tumuli of the

Stone Age, there is nothing to determine whether those who used them were "living before Agamemnon," or were "strutting their little hour" in the days of the glorious Queen Anne. Ashes—some of sticks—the remains of cooking fires, were observed in two places, as noted on the plan; and water-worn stones—were all that remained to indicate inhabitation or defence.

Such is Dun Ban, Loch Horneray, as excavation revealed it; but when inhabited the solid wall was probably 15 feet high above the lake, and on this a parapet, say 5 or 6 feet high, sheltered the defenders from missiles from the shore. But it is to be noted that the dun is commanded by a little eminence, say 50 or 60 feet high, on the shore of the lake, at the distance of 35 yards, so that the defenders would be quite exposed to a flight of arrows, except when skulking by the parapet. I have observed the same defect at Dun Gruagaich, Totag, Loch Duich, which is also commanded by a neighbouring height, so that it may be inferred that the defenders depended more upon the thickness of their walls than upon any active measures against the invaders.

Dun Torquil, Loch Mearral, North Uist.

This dun is situated on a rock or small island in Loch Mearral, at a place called Siginnis. It is about 60 feet diameter, and the wall being about 12 feet thick, the diameter of the interior area is about 40 feet; but these dimensions are not from actual measurement. There is an appearance of a gallery or passage about $2\frac{1}{2}$ feet wide in the thickness of the wall, interrupted at two points, at least, by stairs. The highest part of the wall now standing does not exceed 12 or 13 feet. There are remains of walls outside the dun.

Mr Alexander Carmichael has sent me notes of a number of duns in North Uist, most of them now so dilapidated by use as quarries that their structure cannot be made out. It may, however, be useful to preserve a record of their names and situations:—Dunsgealor, at Solas, from which it is said the materials for several farm-steadings have been taken—it had a well in it of considerable depth; Dun-an-sticir, at Newton, much quarried for building dikes; Dun Thornaidh, in the sound between the island of Valay and Griminnis, the stones of which were carried away to build a house at Valay; Dun Ban, on Loch Una, near Clachan-a-Guilp; Dun Ban, on Loch Cara-

bhad ; Dun Loch Mhic Coile, the door of which is still entire ; Dun Aonais, on a loch at Howmore, the stones taken away for building purposes ; Dun Laithean, near Cheese Bay, on the east side of the island ; Dun Sgarr, at Balranald ; Dun Grogearry, at Howgearry ; Dun Loch Shanndaidh, the stones all taken away for building.

Dun Buidhe, North Loch Olabhat, Benbecula.

Dun Buidhe is built upon what was an island, but the surface of the loch has been lowered 5 feet, and the island is now connected with the main, the causeway being left dry. The island is nearly circular, about 150 feet in diameter, flat, low, and covered with stones. It had evidently been occupied in modern times, and I was told that the Captain of Clanranald had once lived here. The confusion was so great that I could make out little detail. There appeared to have been two concentric walls surrounding the island, with branches extending into the water—at one place probably to shelter a boat. This rampart enclosed the ruins of a circular tower of the usual type ; the present height about 7 feet, but buried in its own ruins. The tower wall is 14 feet thick at the doorway, the external diameter being 55 feet, and the internal diameter about 27 feet. I had no time to excavate for the purpose of learning the arrangements (if any) in the thickness of the wall.

There was one interesting remain here, however. The causeway, from the partial drainage of the loch, was left dry, and the method of its construction was thus disclosed. It is of unusual length—about 200 yards—and sweeps from the original shore of the loch to the former island with a considerable curvature. At first it is made by single blocks (for 40 yards) of 4 and 5 cubic feet ; towards the middle, where it is 4 feet high, sometimes two stones are placed alongside each other ; afterwards, as the water deepened, the causeway was built up of smaller stones from a broad base, and here it was 5 feet high, with a smooth footway of 4 feet broad on the top.

Dun Mor, Garadh-fliuch, Jochdar, South Uist.

This dun (Plate LII.) is on an island in a small loch, and in sight of the main road. It is approached by a causeway and stepping-stones about 150

feet in length, but recently broken through to admit the passage of boats. The island is sub-circular, about 40 yards in diameter, flat, low, and surrounded at the water-line by a wall which is 4 feet thick, and is still 5 feet high. I suspect this wall to be a secondary construction. The dun occupies the middle of the island, and between it and the wall are many ruins of irregular oblong huts of about 12 feet by 9 feet inside, probably also secondary constructions. The dun is quite circular, with walls 11 feet thick, and the internal diameter 27 feet. The highest part of the wall is now about 10 feet above the water, but not more than 4 or 5 feet from the foundation. The doorway is not original, and is the reverse of the usual plan, for the outer end is $8\frac{1}{2}$ feet wide, while at the inner it is narrowed to $2\frac{1}{2}$ feet. There were indications of a continuous gallery in the thickness of the wall, and there appeared to have been a line of masonry from the causeway to the dun. It is to be observed that the door of the dun is turned away from the causeway.

It was here I had a talk with a road-maker, who told me that he had been to all the duns of South Uist for the purpose of robbing them of their flag-stones to serve for lintels in houses.

Dun-a-Chaolais, Vatersay, Barra.

This is apparently one of the circular towers of the usual type, having an exterior diameter of 52 feet, with an interior diameter of 30 feet, and a thickness of wall of 12 feet. From the condition of the ruin the door is not visible, but the door opening from the interior to the foot of the stair leading to the gallery (4 feet wide) is partly open, and steps in the gallery in the thickness of the wall are visible on the opposite side of the dun.

Dun Stron Duin, Bernera, Barra.

This dun is a curved wall of drystone masonry, enclosing a point of a promontory 680 feet high. The wall is about 95 feet long, 15 feet thick, and is still 13 feet high. Through the north end there is a doorway $5\frac{1}{2}$ feet high by $3\frac{1}{2}$ feet wide. At 4 feet in, there is a rebate on the north side, perhaps for a wooden door-post. At 8 feet in on the south side a

ground gallery begins, which is $3\frac{1}{2}$ feet wide, and runs throughout the length of the wall. The masonry of the lower part of the wall is of very large blocks.

CLASSIFICATION OF THE DUNS OF THE OUTER HEBRIDES.

In the absence of nearly all written history of the strongholds of the Outer Hebrides, an attempt is here made to classify them from the most natural and simple forms to their more elaborate structure of undressed and uncemented masonry, without, however, intending to assume that this arrangement at all represents the order in time in which the fortresses have been either made or used.

No doubt, in a forest country, the woods are the first and most obvious protection; but the northern islands have always been an open country. Yet, if the islanders wanted the shelter of woods, nature supplied them with still more inaccessible retreats in the scarped stacks and mural promontories which surround their coasts.

I. NATURAL STRENGTHS.

(1.) *Stack Rocks*.—Of the high Stack Rocks which have been used as fortresses, Berisaidh, in the mouth of Loch Roag, is a good instance; so are the two Carnbergs—two of the Treshnish islets—on the west coast of Mull. But in general these isolated rocks have not been so extensively used as might have been expected, owing no doubt to the difficulty of securing the boats and the inconvenience of transport by sea, which indeed, in winter, would interrupt all communication for weeks.

(2.) *Mural Promontories*.—A much more numerous class of strongholds is where a high rocky semi-islet, nearly disjoined from the main by a ravine of greater or less depth, has been taken advantage of. The ravine has sometimes been formed by the erosion of a trap-dike, in which case the sides are as steep and straight as the walls of a house—as at Dun Othail, and probably at Dun Eystein. Donald Cam's Stack is not a Stack Rock in the sense of the first-mentioned class of natural strengths, but a semi-isolated rock. In the Orkneys, Low has noted many of these refuges “on

the tops of vast rocks, which tradition tells us the people fled to in case of disturbance from abroad."

(3.) *Fortified Promontories*.—Often when a small scarped peninsula occurred, the want of a natural ravine has been supplied by a ditch and rampart. In most of these defended promontories, the ditch and rampart are so ruined that no details can be observed—as at Dun Bhilaseleittir in Lewis, and Burrow Head, Stronsay, in the Orkneys. At Dun-a-Bheirgh, Shabost, Lewis, on the other hand, there are considerable remains of the characteristic masonry of the rampart. In Shetland, Low describes the Blue Moul in Unst, and Sundborg at Sumburgh Head, as of this class.

(4.) *Walled Islets*.—Low flat islands, both marine and lacustrine, and tidal peninsulas, are sometimes surrounded at the water's edge by a dry-stone wall. Dun Eorrdail, Ness, Lewis, is a semi-island; Dun Bharclyn, Lochs, Lewis, is an island at all times of tide; the Dunan at Carloway, Lewis, the Dun of Loch Druim-an-Isgair in South Uist, and Dun Mhac Mhic Phail in Loch Ollavat, Benbecula, are lacustrine islets, surrounded by a simple drystone wall. In Shetland Little Holm in Quendale Bay, and Kirkholm in Selie Voe, are fortified in the same manner.

(5.) *Castellated Islets*.—A much more interesting class of fortification of natural strengths, of which I saw but one example in the Outer Hebrides, is the lacustrine islet, called (for want of a specific name) the Dun Loch-an-Duin, in the Aird, Lewis. Three sides of the islet are enclosed at the water-line by a rough drystone wall; but the side facing the causeway is strongly fortified by what may be called a gate-tower, through which was the only passage into the island. The entrance was further defended by a guard-cell. I do not doubt that stone steps led up to the top of the gate-house, which was covered by a parapet, and that the height was about 15 feet above the water. The masonry and guard-cell are in no respect different from those in the circular towers; in fact, it is an almost exact reproduction even in dimensions of the wall and entrance of some of the "Pictish Towers,"—Dun Bhragair to wit.

It is interesting to find an islet fortified in nearly the same manner in Whalsay, Shetland. Low gave a sketch-plan and elevation of it in his Tour, and more recently Dr Mitchell has figured it. Both sketches substantially agree, but of course it was much more perfect in 1794. At the time of Dr Mitchell's visit the stones were being removed to build a school.

II. BROCHS OR "PICTISH TOWERS."

We now arrive at a structure of defence, later in style, but possibly not later in time than those noticed in the preceding section. It may be described as characterised by a hollow wall containing stairs and galleries, or as two closely approximate walls bound or tied together by flags, which form the floors and roofs of the galleries and the stairs leading up to them. In plan, the fort or castle is almost always round or curvilinear in outline ; very seldom right lined ; most of them are circular.

The basement of these castles is usually solid, except where a varying number of bee-hive-roofed cells are constructed at intervals within its thickness. Where there are no bee-hive cells, as at Dun Carloway, the roof of the basement gallery is not formed by flags, but by overlapping.

Supposing galleried walls to have been built upon the gate-houses of the two fortified islets noticed in the last section, we should have the kind of fortification which exists in Dun Stron Duin, Bernera, Barra Head, where a galleried wall is built across the neck of a promontory—the only example of the kind known to me. Dun Chonil in Glen Beg, Glenelg, as shown in Sir Henry Dryden's plan, is of the same nature, the dun consisting of a galleried wall enclosing a somewhat circular space, one side of which is unenclosed, because defended by a cliff.

These, however, are rare examples. The tower is the usual form. Sometimes it is more or less conformed to the shape of the small islet on which it stands, as in the case of Dun Bharabhat, in Great Berneray, which is still further remarkable in having to all appearance the galleried wall only on one side. Sometimes the tower is an irregular oval, on the ground plan, as Dun Chuithaich, on the Sands of Uig, the greatest and least diameters of which are respectively 60 feet and 45 feet measured over walls. Dun Ban, Cromore, Lochs, is more nearly circular, and is peculiar in having a flight of steps from the inner door on the ground level leading at once to the third gallery.

But by far the greater number of these towers—of which Dun Carloway may be taken as the type—are strictly circular in plan, and closely resemble the Brochs of Shetland, Orkney, and the Northern and Western Mainland of Scotland.

The situation of these towers in the Northern and Western Islands is normally upon an islet in a lake. Rocky islets in the sea are but rarely chosen to build upon; but there is one at West Burrafirth, in Sandness, and another at East Burrafirth, in Aithsting, both in Shetland. In the absence of a lacustrine islet, low points in lakes have the next preference; then low points projecting into the sea; but the open country was frequently chosen, where the position of the tower is seldom one of great natural strength. They are never placed on great heights, and in the islands they are not met with in the moors or far from the cultivated land. While there are duns on the west side of Barvas parish, there are no towers—only natural forts—on the east side between Ness and Tolsta, the reason being that on one side there is a good breadth of cultivable soil, while on the other there is nothing but peat.

The body of the tower, as has been said, consists of two concentric walls rising from a basement, and tied or bound together at varying heights by flags.

The theory of the ground plan is very simple. The base is a circle of which the area in breadth is one-half of the diameter, and the wall one-fourth.

	Ext. Dia.	Area.	Wall.
13 Brochs in the Orkneys, average	57·9 feet.	32·6 feet.	12·9 feet.
11 „ in Shetland, „	57·1 „	26·6 „	14·7 „
7 „ in Outer Hebrides, „	51·6 „	26·8 „	12·1 „
—	—	—	—
31 „ give a mean of	55·5 „	28·7 „	13·2 „
The Exterior Diameter ranged in Shetland, from 68 to 49 feet.			
„ in Orkney, from 69 to 40 „			
„ in Outer Hebrides, from 55 to 48 „			

The general uniformity in plan and dimensions over the north and west coasts is very remarkable.

There are two classes of basement: either the base is solid excepting where it contains bee-hive cells; or there is an interrupted ground gallery going all round, which is roofed not by flags but by overlapping. In the first class, the number of cells follows no rule. In the second, the ground gallery is interrupted by one or more flights of steps dividing it into several cellars, as in the Cromore Dun and the Dun in Loch Bharabhat. At Dun Gruagach, Loch Duich, from the unevenness of the ground, one-

half of the base of the tower is 5026 feet above the level of the other, and the lower half contains a ground gallery.

Besides the cells—or otherwise, the ground gallery—the basement always contains the doorway, which is never so far as I know raised above the level of the ground, as in that case it would have been very inconvenient for the transit of cattle. The doorway is the only ope in the exterior of the tower; neither window nor loophole has yet been noted.

From the details of thirteen doorways it appears that it is very unusual—as at Dun Bhraigair—for the passage to be of the same breadth throughout. The breadth of doorway outside is usually 3 feet, but varies from $2\frac{3}{4}$ to 4 feet, and the average height is 5 feet. The jambs are generally perpendicular, never inclining inwards unless from subsidence. At from one-half to one-quarter through the passage, there is a rebate on both sides of from 6 inches to 1 foot in breadth, evidently for a door. Bar-holes have been formed behind the rebate in Orkney and Shetland, but I have not seen them at all in the Outer Hebrides. The inner part of the passage is from 6 to 7 feet high, the roof being sometimes flat, and sometimes rising by inverted steps towards the area. The outer part is always flat roofed.

It is very unusual when there is not a guard-cell on one side of the inner doorway. The guard-cell is often a simple bee-hive chamber about 6 feet in diameter and little more in height, entered from the passage by a doorway sometimes not more than $2\frac{1}{2}$ feet square, and having no other communication with the interior of the building. At Dun Carlaway and at Cromore, the guard-cell communicated with the ground gallery behind. Occasionally in the Orkneys it is very much elongated, as at Borrowston, Shapinsay.

The external surface of the outer wall in these towers is held in general admiration for the skill with which such rude materials have been used in constructing a regular and even surface. The stones have not been recognised as having been either dressed or quarried. This was not from any want of ability in the builders, but because ice-borne blocks were strewed over the whole face of the land in the Outer Hebrides. Although the Laurentian Gneiss, of which these transported blocks are composed, has an imperfect slaty structure, it is seldom that two of these sides are parallel. Usually the flattest side of the stone forms the outer face of the wall, and the stone is underpinned with great skill to adapt it to its position. Never-

theless, Sir Henry Dryden has remarked, that individual stones often appear crushed from resting upon too few points, for there is no bedding. But while the outer face of the tower is thus a model of skill for regularity and strength, it is remarkable that no pains were taken with the inner side, which has a very rough face; and towards the top, where the wall is often but one stone thick, it has no inner face at all—long jagged points projecting into the upper galleries.

The largest stones are always employed in the lower courses of the tower. In Dun Carloway there are from 8 to 10 courses in 6 feet of height towards the base, and this rule holds good for such of the towers in the Long Island as I have seen. The stones are usually less than 1 foot thick and 2 feet long, and the largest may be taken at about half a ton. In the Orkneys and many of the Shetland Isles, the stones are slaty, and, having two parallel faces, make an excellent and firm wall without mortar; but with the shapeless blocks of the Outer Hebrides, the upper part of the tower has a very insecure aspect, and where only a single stone thick could not have stood for any length of time but for the device of carrying up two separate walls, with the width of the gallery between them, and tying them together at intervals of 5 or 6 feet of their height by the flags forming a roof to the gallery below them, and a floor to the gallery above them. At Castle Gruagach, Loch Duich, the wall of the tower is made of large blocks, but not exceeding $\frac{3}{4}$ of a ton, placed usually over the joints between two beneath; the interstices are filled in with slaty pieces of stone laid flat, as has also been done at Edin's Hall in Berwickshire.

The batter or slope inwards of the exterior surface of the external wall varies considerably. At Dun Carloway, in a height of $33\frac{1}{4}$ feet, the batter is $7\frac{1}{4}$ feet, or 1 foot in $4\frac{3}{4}$ feet of height. In the remaining height of Clickamin, $16\frac{3}{8}$ feet, the batter is 1 foot in 5.2 feet. At Mousa, as shown from Sir H. Dryden's careful plans, the batter varies at different heights, and at $40\frac{1}{2}$ feet (the whole height) is 1 foot in 6 feet. If any reliance can be placed on a plan of Dun Telve in Glenbeg, Glenelg, made apparently in 1773, the batter was 1 foot in 4 feet of height nearly.

The only tower which is apparently complete, or nearly complete in its original altitude, is Mousa, and its height is $40\frac{1}{2}$ feet. Dun Carloway is 34 feet high. Castle Telve, Glenelg, in 1772, was $30\frac{1}{2}$ feet high, and Pennant estimated that it was originally 41 feet high. Castle Troddan, in

Glenelg, appears from Gordon's drawing to have been nearly perfect in 1726, and he states the perpendicular height to be exactly 33 feet; Pen-nant found it but 24 feet 5 inches high. Dun Dornadilla, in 1776, was still 25 feet high. The dun in Loch Bharabhat, Berneray, Lewis, is now 14 feet high, and Dun Bhragair is about the same. Although Mousa and Dun Carloway have the same diameter at base, it is not probable that Dun Carloway was raised so high as Mousa; it is probable that it was not originally more than a very few feet higher than at present. But the difference is not large, and it may be accepted that from 35 to 40 feet is the normal height of this species of tower.

The area enclosed in the interior of the tower is circular, and usually rather under 30 feet in diameter, though exceptional instances are noted of much greater size. The area is now generally filled with the fallen stones; where these have been cleared out, a well has often been found within the area, although sometimes the well is not inside the tower but closely adjacent to it. Drains have also been found in the floor of the area, and something of this kind must have existed at Dun Carloway, for an old man told me he had seen a pipe leading from it to the loch, from which he imagined they pumped up the water.

The inner wall of the tower enclosing the area usually rises perpendicularly—but sometimes with a slight batter—for 8 feet, when it is recessed to form a scarcement or rebate, sometimes with flat undressed stones projecting like a corbel table and forming a ledge from $\frac{3}{4}$ to $1\frac{3}{4}$ feet in width. But there is a remarkable variation in the position of the ledge in the Glenelg duns, where instead of being on a level with the roof of the ground gallery or basement, it is three-fourths up towards the top. The ledge was, of course, for something to rest on, and this must either have been a roof or a floor. I am unable to adopt the view of those who regard it as a roof, and incline to the opinion that the ledge must have supported the beams of a wooden floor. In several instances, there is a door of communication with the interior of the galleries at the level of the ledge, and this makes it extremely probable that the ledge supported the beams of the floor. At Dun Carloway there is a break through the inner wall at that height. At the dun in Loch Bharabhat, Berneray, Lewis, there was no trace of entrance to the interior on the ground level, while there are two doors opening on to the ledge, but this tower is of an uncommon type. In

almost every case in which Sir Henry Dryden has drawn plans above the lintels of the Orkney and Shetland towers, there are opes which may have served for doors into the floored area. In Mousa, for instance, there is a large door whose sill is 20 inches above the ledge. At Dun Grugach, Loch Duich, immediately over the main doorway, is another large ope or door admitting to a bee-hive cell on the left-hand side. There is no getting into this cell but by this doorway, whose sill is at the level of the ledge. On the theory that the ledge supported the rafters of a roof, the presence of these large opes or doors above the level of the ledge is purposeless.

Besides the main doorway leading into the interior area, there are others opening from the enclosed area into the bee-hive cells of the basement, where these exist; as well as one leading into the ground gallery and staircase for ascending to the upper galleries and to the top of the tower. It is remarkable that this inner doorway leading to the stair and galleries is almost always to the left of the main entrance; but two (Okstrow in Orkney and Cromore in Lewis) have it on the right side; one has it opposite the main door; seven have it on the left side, and the rest are undetermined. The sill of the door is very often 3 or 4 feet above the ground level, while the entrances to the bee-hive cells in the basement are nearly always on the ground level.

On looking up from within the enclosed area, the inner wall of the tower above the ledge is seen to be pierced with many apertures of a rectangular form. Unfortunately there are few towers now entire to the height of the third floor, but besides Mousa there can be little doubt that in Dun Alisaig, the Glenelg Duns, Dun Carloway, and probably, at least, in two of the Sutherland towers, there were four perpendicular rows of windows in the inner wall, looking into the enclosed area. At Mousa, Alisaig, and Carloway, the ledge is on the level of the second floor (counting the ground floor as one), and the rows of windows rise from that level; but in the Glenelg towers the ledge is near the top, and the opes or windows were continuous from the ground floor; and in these two towers there were intermediate rows of windows above the ledge. The windows are usually divided by horizontal shelves or partitions of flagstones, which are no doubt stones of relief to reduce the weight of the masonry on the lintels below. At Dun Carloway, the windows are the full height of the galleries

and unobstructed by shelves. The same is the case with the dun in Berneray, Lewis.

Although there is a marked similarity among the several examples of these towers, yet no two are exactly alike in their arrangements. They are not copies of each other. It may be stated in general terms, that the space between the outer and inner walls above the basement, is divided into horizontal sections by flags which form the floors of galleries lighted by windows looking into the interior area. These galleries were reached either as in Mousa by a continuous staircase, or as in Dun Carloway by a staircase and landing from floor to floor. In Dun Carloway there are six floors, giving an average of 5 feet 7 inches for each gallery, including the stone which forms the floor. The width of the second gallery at bottom is $2\frac{1}{2}$ feet, but that of the fourth gallery is only 15 inches. I am satisfied the upper gallery was not formed for communication but for constructional reasons, for the upper part of the tower is by this means both stronger and lighter than if built solid. An inspection of the panorama of what remains of the galleries of Dun Carloway, shows how much they vary in height, one of them (the third) being less than 4 feet. Here two parties of builders seem to have joined work, with the result that a flight of steps instead of leading forwards is flagged over and forms a *cul-de-sac*. In Mousa there are 7 floors in 37 feet, thus averaging 5 feet for each gallery, but as in Dun Carloway the section shows one of the galleries as but $3\frac{3}{4}$ feet high. A point of some importance is the breadth of the wall at the top of the tower. At Mousa the average breadth on the top is 8 feet, and the outer wall is over 3 feet thick, so that the garrison could stand in the trough of the uppermost gallery, and have a parapet in front to protect them from the arrows of the enemy, with the inner wall behind as a safeguard from falling into the interior.

The top of the tower being formed of loose stones, like the rest of the building, has no other cohesion than what is derived from the weight of the material; it is therefore manifestly unfit to support a roof unless so constructed that there would be no thrust. In fact, if roofed at all it could only have been by a roof constructed on the same principle as the roofs of the stone cells in the basement, though not a roof of stone. The theory of the construction of such a roof is simple enough and requires no carpentry. It would, moreover, strengthen and consolidate the upper part of the walls.

The space to be covered in is circular and 30 feet in diameter. Take four poles, each 25 feet in length, and lay their ends on the inner wall, so that they form a square over the circular area. On these lay four other poles 21 feet in length to form a square, the angles of which rest on the middle of the poles first laid. A third square of 16 feet poles, a fourth of 12 feet poles, and a fifth of 9 feet, will leave only a hole in the centre of 5 feet square for light and air. These are the main joints or beams. The intervening spaces could be variously filled in; but the strongest and best filling would be to lay poles parallel to and outside of the main beams. By the method here indicated, supposing the poles to be 8 inches thick on the average, there would be a slope of 2 in 5. The interstices could be made weather-tight with turf, straw, grass, or hides.

We have in the last place to consider the quantity of materials and the amount of force required for the erection of one of these towers. Dun Carloway has say 25 feet internal diameter; $12\frac{1}{2}$ feet thickness at base, and 5 feet thick at the height of 34 feet. The exterior diameter is consequently 50 feet at base, and the mean diameter at base $37\frac{1}{2}$ feet. As the mean diameter at top is 30 feet, the mean diameter of the tower is $33\frac{3}{4}$ feet. This gives a length of wall of 106·07 feet, and a superficies of 3606·33 feet, which multiplied by 8·75 feet—the mean thickness—gives the cubic content of 31555·8; but from this must be deducted 7212·8 cubic feet, being the gallery space between the walls assuming it to be 2 feet wide on the average, which leaves 24343 cubic feet—the mass of the tower. The flags binding the two walls together have not been taken into account, for the calculation is made as if the walls were solid ashlar masonry, whereas they are rubble of the rudest kind, and it is considered that the gallery slabs would only fill up the chinks. At the rate of 12 cubic feet to the ton, the whole masonry would weigh 2028·59 tons. Now a man can lift 150 lbs., or 15 men can lift one ton; therefore 30428·8 people could lift Dun Carloway when entire, and twice that number could carry it a day's journey (say 10 miles) in one day. But if 60857·7 people could carry it 10 miles in one day, 6085·7 people could carry it one mile in one day. As all the stones for the tower could be found within the radius of a mile, 608·5 men could collect them in ten days, and 60·8 men could do it in 100 days. But how many people were employed upon the work? Probably as many as the dun could hold. I suppose the basement to have been filled with

cattle, and the people to have lodged on a floor above them. If there was no floor and no cattle, the result would be the same. In the area of 25 feet diameter, there is 491·25 square feet of space, and allowing 8 square feet to each individual, it would contain 61·4 people. Allotting this space to be occupied by as many men as women, it would represent 30·7 families, which at five to a family is equal to 153·5 individuals. But I shall suppose the children were turned into the galleries, and that the working party of the community is represented by 61·4 individuals. A Lewis dykebuilder will lay 54 cubic feet of drystone masonry in a day; he could therefore lay 24343 feet in 450·8 days; or the same quantity could be done by 61 persons in 73·9 days. Now we have seen that 60·8 men could carry all the materials of Dun Carloway one mile in 100 days, and it may be assumed that the same number could lift the stones the required height in one-third of that time—say 33 days—which would be at the rate of 61·5 tons daily, or one ton per man. This would not be very hard work, for if they worked ten hours per day, it would only be 2 cwts. per hour. It is therefore shown, that if the number of people which the area of Dun Carloway could berth were employed on its construction, they could collect the materials in 100 days, and in 107 days it could have been built—that is, that the tower could have been begun and finished in less than seven months. In reviewing the result of these calculations, I am inclined to think that the building was accomplished in a less rather than a longer time, and that the whole work was finished in one summer season.